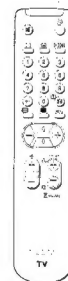
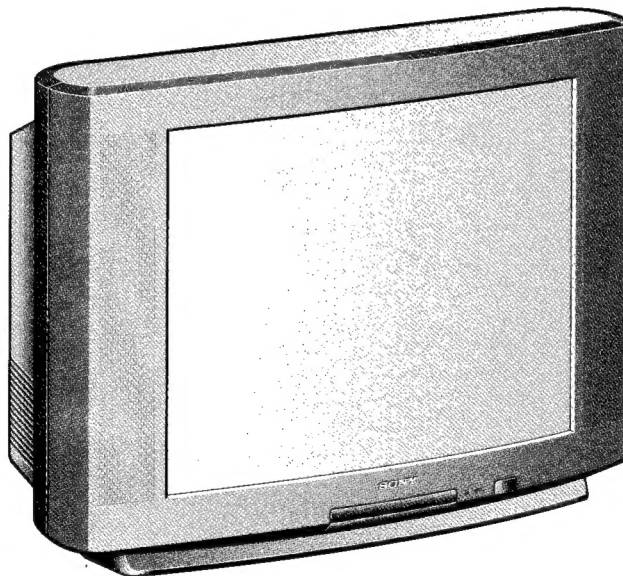


# SERVICE MANUAL

## FE-1 CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
<b>KV-25C5A</b>	RM-883	Italian	SCC-Q06F-A	<b>KV-29C5A</b>	RM-883	Italian	SCC-Q06D-A
<b>KV-25C5B</b>	RM-883	French	SCC-Q02F-A	<b>KV-29C5B</b>	RM-883	French	SCC-Q02D-A
<b>KV-25C5D</b>	RM-883	AEP	SCC-Q04F-A	<b>KV-29C5D</b>	RM-883	AEP	SCC-Q04D-A
<b>KV-25C5E</b>	RM-883	Spanish	SCC-Q05F-A	<b>KV-29C5E</b>	RM-883	Spanish	SCC-Q05D-A
<b>KV-25C5K</b>	RM-883	OIRT	SCC-Q03G-A	<b>KV-29C5K</b>	RM-883	OIRT	SCC-Q03C-A
<b>KV-25C5R</b>	RM-883	OIRT	SCC-Q03H-A	<b>KV-29C5R</b>	RM-883	OIRT	SCC-Q03D-A



TRINITRON® COLOR TV  
**SONY®**

# KV-25C5/29C5

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
Italian	B/G/H	GERMAN Stereo	ITALIA VHF : A-H2 (C) UHF : 21-69 PAL B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K, L, I	GERMAN/NICAM Stereo	L VHF : F02-F10 UHF : F21-F60 CABLE : B-Q B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69 I UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69 D/K VHF : R01-R12 UHF : R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	KV-25C5K/29C5K GERMAN/NICAM STEREO  KV-25C5R/29C5R GERMAN STEREO	B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 D/K VHF : R01-R12 UHF : R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	25C5A	25C5B	25C5D	25C5E	25C5K	25C5R	29C5A	29C5B	29C5D	29C5E	29C5K	29C5R
Power Consumption	89W	97W	97W	97W	97W	97W	100.1W	108W	108W	108W	108W	108W

## [PICTURE TUBE]

### KV-25C5

Super Trinitron  
Approx. 63cm (25 inches)  
(Approx. 59cm picture measured diagonally)  
110 degree deflection

### KV-29C5


Super Trinitron  
Approx. 72cm (29 inches)  
(Approx. 68cm picture measured diagonally)  
110 degree deflection

## Input/Output Terminals

### [REAR]

 21-pin Euro connector (CENELEC standard).

- Inputs for Audio and Video signals.
- Inputs for RGB.
- Outputs of TV Video and Audio signals.


 21-pin Euro connector.


- inputs for Audio and Video signals.
- inputs for S Video.
- outputs for Audio and Video signals (selectable).


 Phono Jack


- Outputs for Audio Signals

### [FRONT]

 2 Video input - phono jack

 2 Audio inputs - phono jacks

 S Video input 4 pin DIN

 Headphone jacks : stereo minijack

Sound output 2 x 20W (Music Power)

Power requirements 220 - 240V

### Dimensions

KV-25C5 Approx 717x507x494mm

KV-29C5 Approx 794x567x545mm

### Weight

KV-25C5 Approx 33kg

KV-29C5 Approx 43kg

### Supplied accessories

RM-883 Remote Commander (1)

IEC designated R6 battery (1)

### Other features

NICAM\*, FASTEXT, TEXT  
\*(KV-25C5B/25C5E/25C5K/  
29C5B/29C5E/29C5R only)

### [RM-883]

Remote control system infrared control

Power requirements 1.5V dc

1 battery IEC designation

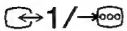
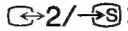
R6 (size AA)

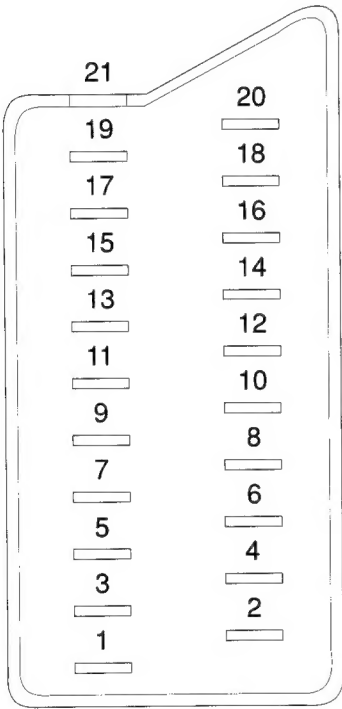
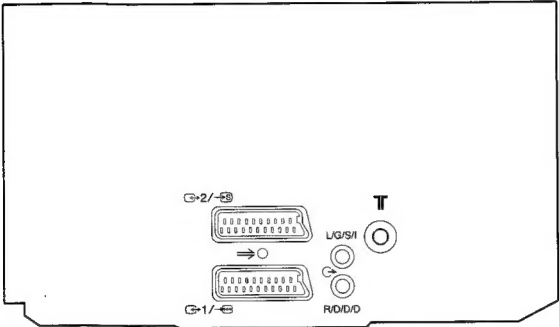
Dimensions Approx 65x225x21mm w/h/d

Weight Approx 157g (Not including battery)

Design and specifications are subject to change without notice.

Model Name Item	KV-25C5A KV-29C5A	KV-25C5B KV-29C5B	KV-25C5D KV-29C5D	KV-25C5E KV-29C5E	KV-25C5K KV-29C5K	KV-25C5R KV-29C5R
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	OFF	OFF	OFF	ON	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front In (3)	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON	ON	ON
Norm I	OFF	ON	OFF	OFF	OFF	OFF
Norm D/K	OFF	ON	ON	ON	ON	ON
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
Teletext	ON	ON	ON	ON	ON	ON
Nicam Stereo	OFF	ON	OFF	ON	ON	OFF
Language Preset	Italian	French	German	Spanish	OIRT	OIRT

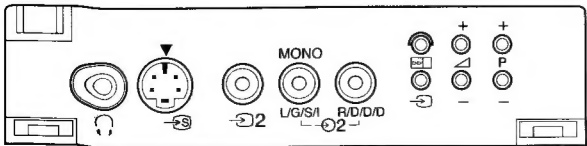
21 pin connector ( ,  )



Pin No	1	2	4	Signal	Signal level
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (audio)	
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (blue)	
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Blue input	0.7 +/- 3dB, 75 ohms positive
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedance : More than 10K ohms Input capacitance : Less than 2nF
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (green)	
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
11	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (red)	
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (blanking)	
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Red input	0.7 +/- 3dB, 75 ohms, positive
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedance : 75 ohms
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (video output)	
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (video input)	
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Common ground (plug, shield)	

☐ Connected      ☒ Not Connected (open)      \* at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V+/- 3dB 75 ohm, positive Sync 0.3V -3/+10dB
4	C (S signal input	0.3V+/- 3dB 75 ohm, positive Sync



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## CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP

## WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

## SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


## ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINT E SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

## ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

## ATTENTION AUX COMPOSANTS RELATIFS LA SÉCURITÉ !!

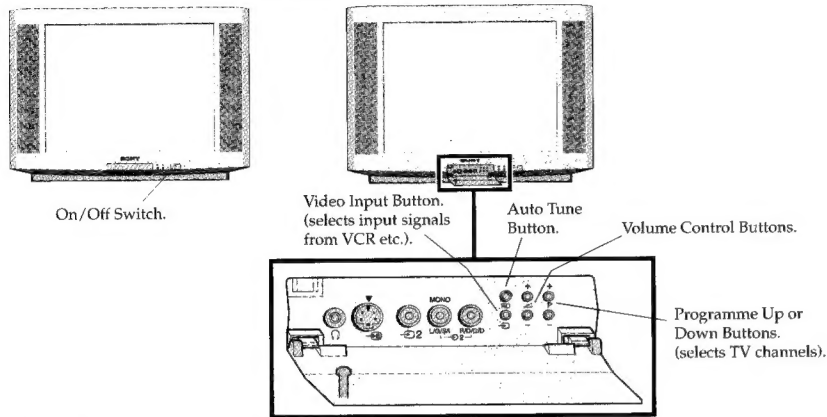
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÉS PAR SONY.

## SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

### Basic TV Features

#### Overview of TV Buttons



#### Overview of Remote Control Buttons

##### To Mute Sound

Press to mute TV sound. Press again to restore the sound.

##### To Select Channels

Press to select channels.

For double-digit programme numbers, e.g. 23, press -/- first, then the buttons 2 and 3.

##### To Change Screen Format

Press to view programmes in 16:9 mode. Press again to return to 4:3 mode.

##### To Adjust TV Volume

Press to adjust the volume of the TV.

##### To Temporarily Switch Off TV

Press to temporarily switch off TV. Press again to switch on TV from standby mode.

*To save energy we recommend switching off completely when TV is not in use.*

NOTE: After 15 - 30 minutes without a TV signal and without any button being pressed, the TV switches automatically into standby mode.

##### To Reveal On Screen Information

Press to reveal all on-screen indications. Press again to cancel.

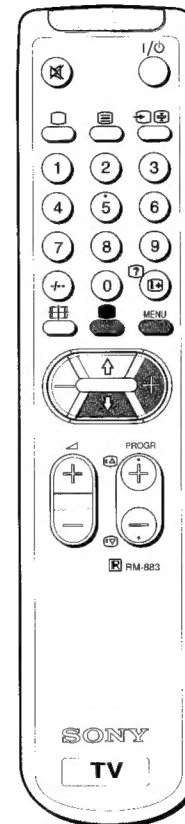
##### To Select Channels

Press to select channels.


### Additional TV Features

#### Using Select Mode




You can select different preset picture and sound modes.



**1** Press the MENU button on the remote control to display the menu on the TV screen.

**2** With the cursor pointing at the  symbol on the TV screen as shown, press the yellow button.


**3** Press the blue button to select the desired mode:


-  Personal Mode - reverts to settings made in "Adjusting the Picture and Sound" sections of the manual
-  Movie Mode - for films
-  Live Mode - for live broadcast programmes

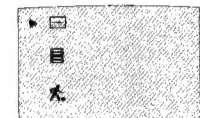
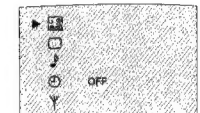
**4** Press the MENU button to remove the menu display from the TV screen.

**Note:** The mode selected in step 3 is now stored.

#### Changing Modes Quickly

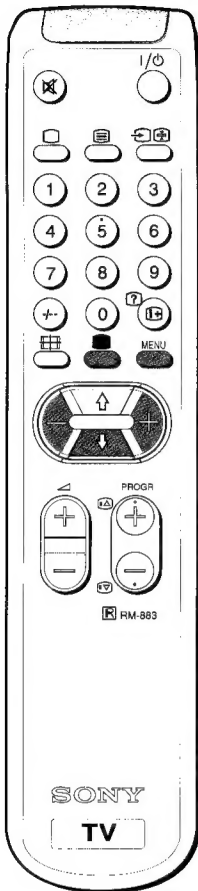
**1** Press the  button on the remote control to display the three different modes.




**2** Press the  button again to select your desired mode.











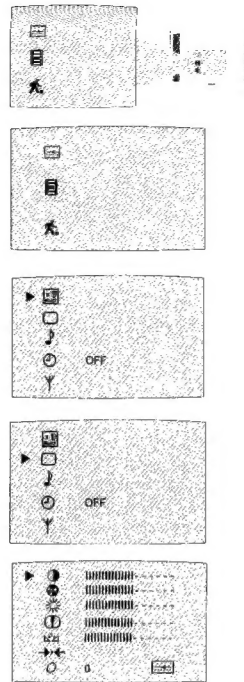
## Adjusting the Picture

Although the picture is adjusted at the factory, you can modify it to suit your own requirement.



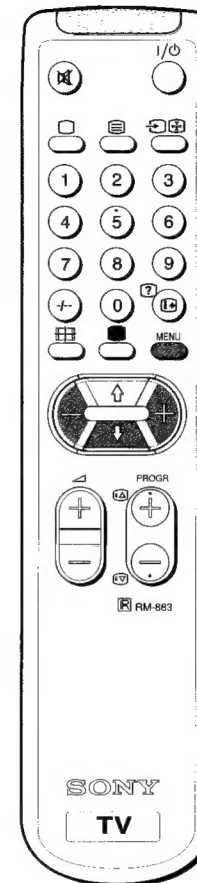
- 1 Press the  button on the remote control to display the three different modes on the TV screen.
- 2 Press the  button to highlight the personal mode symbol as shown.
- 3 Press the MENU button to display the menu on the TV screen.
- 4 Press the blue button on the control to select the  symbol on the TV screen then press the yellow button.
- 5 Press the blue button to select the item you wish to change (see below).
- 6 Press the red or yellow button to alter the selected item.
- 7 Press the MENU button to remove the menu display from the TV screen.




Symbol	Item
	• Contrast
	• Colour
	• Brightness
	• Sharpness
	• Hue control (only for NTSC video signals)
	• Reset - resets to factory preset picture level
	• Picture rotation - adjusts picture tilt (only for KV-29C5D model)
	• Represents the mode selected in the "Using Select Mode" section.

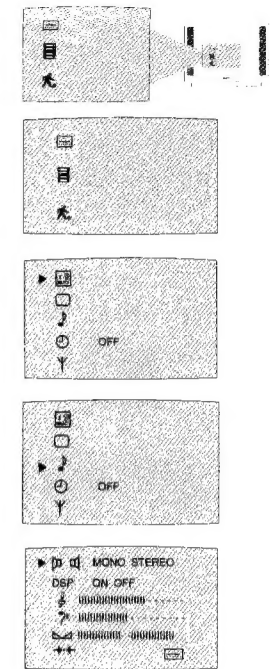








## Adjusting the Sound

Although the sound is adjusted at the factory, you can modify it to suit your own requirement.



- 1 Press the  button on the remote control to display the three different modes on the TV screen.
- 2 Press the  button to highlight the personal mode symbol as shown.
- 3 Press the MENU button to display the menu on the TV screen.
- 4 Press the blue button to select the  symbol on the TV screen then press the yellow button.
- 5 Press the blue button to select the item you wish to change (see below).
- 6 Press the red or yellow button to alter the selected item.
- 7 Press the MENU button to remove the menu display from the TV screen.

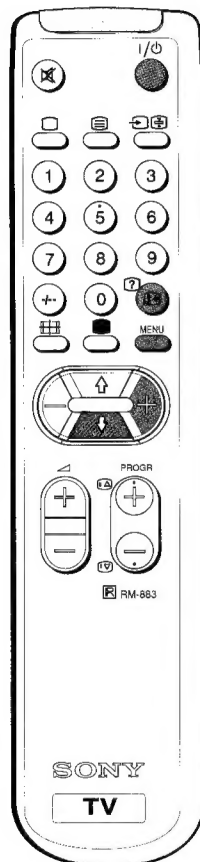


Symbol	Item
	• Mono sound/Stereo sound A: Channel 1 sound/B: Channel 2 sound (to select your desired language from a dual sound broadcast)
DSP	• On/Off (digital sound processor)
	• Treble
	• Bass
	• Balance
	• Reset (resets to factory preset sound level)
	• Represents the mode selected in the "Using Select Mode" section of the manual.

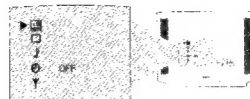
## Additional TV Features

### Using the Sleep Timer

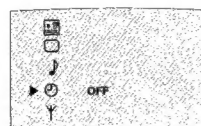
The TV may be set to switch automatically to the standby mode after a length of time chosen by you. You may set the time in 15 minute steps up to 4 hours.



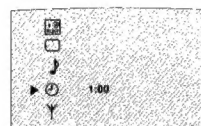
**1** Press the MENU button on the remote control to display the menu on the TV screen.



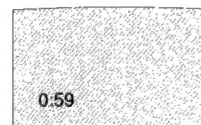
**2** Press the blue button on the control to select the symbol on the TV screen, then press the yellow button.



**3** Press the yellow button repeatedly until the required amount of time delay appears on the screen.



**4** Once the time delay has been selected, press the MENU button to remove the on-screen display.



One minute before standby, the display shown appears on the screen.

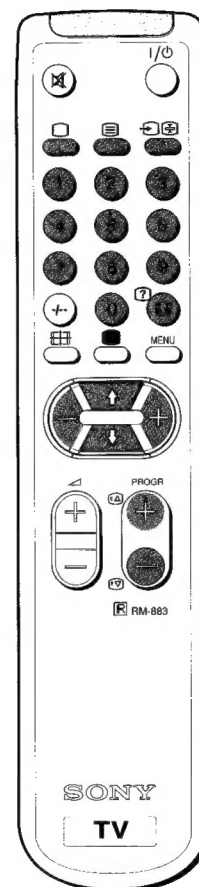
#### Notes:

- When watching TV, press the button to display time remaining.
- To return to normal operation from standby mode, press the button.

## Additional TV Features

### Viewing Teletext

Teletext is an information service transmitted by most TV stations.



#### Selecting Teletext

**1** Press a number button on the remote control to select the channel which carries the teletext service you wish to receive.

**2** Press the button on the remote control to switch on teletext.

**3** Input three digits for the page number using the numbered buttons on the control.

**4** Press the button to switch off teletext.

**Note:** Teletext errors may occur if the broadcasting signals are weak.

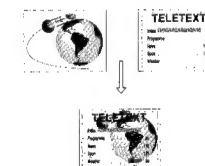


#### Using Other Teletext Functions

##### To Superimpose Teletext on to the TV

Press once in teletext mode or twice in TV mode to superimpose teletext on to the TV screen.

Press again to cancel teletext mode.



##### To Move to Next or Preceding Page

Press PROG +/ - on the remote control to select the previous or next page.

##### To Freeze a Teletext Page

Press on the control to freeze the page.

Press again to cancel the freeze.

##### Revealing concealed information (eg: answers to a quiz).

Press to reveal information.

Press again to conceal the information.

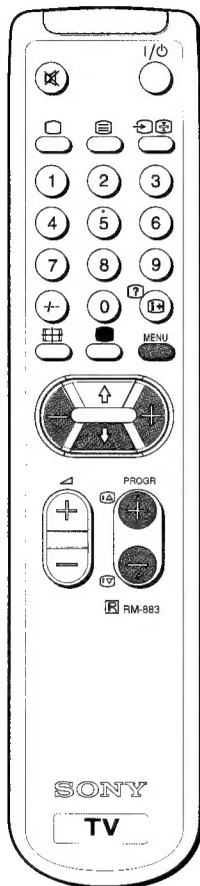
##### Using colour buttons to access pages (Fastext)

When the colour coded menu appears at the bottom of a page, press the colour button (green, red, yellow or blue) to access the corresponding page.

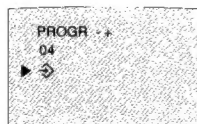
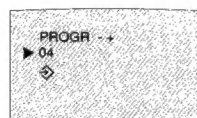
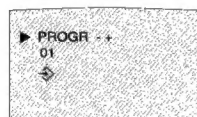
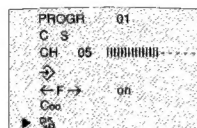
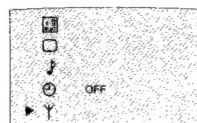
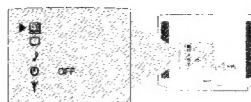


## Exchanging Programme Positions

After tuning you may wish to change the order in which the channels appear on the TV. You may wish for example to exchange the channel on programme number 8 with the channel on programme number 4.

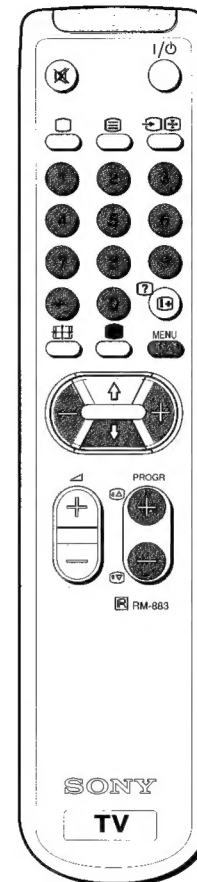


- 1 Press the MENU button on the remote control.
- 2 Press the blue button on the control to select  $\gamma$  on the TV screen, then press the yellow button.
- 3 Press the blue button to select  $\gamma$  then press the yellow button.
- 4 With the cursor pointing at PROGR on the TV screen as shown, press PROGR + or - button until the channel you wish to rearrange appears on screen, then press the blue button once.
- 5 Press the red or yellow button to select the new programme number (e.g. PROGR 04) for your selected channel.
- 6 Press the blue button to select  $\gamma$  then press the yellow button to exchange the channels.
- 7 Repeat steps 4 to 6 if you wish to change the order of the other channels on your TV, then press MENU to return to normal TV screen.
- 8 Press the PROGR +/- button to view your selected channels on their new programme numbers.

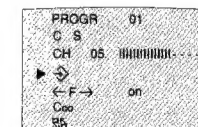
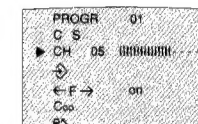
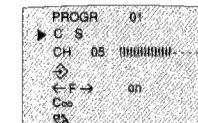
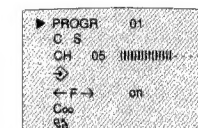
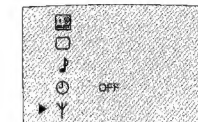
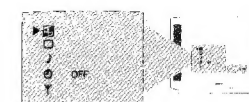


## Manually Tuning the TV

You have already tuned the TV to receive all available channels using the 'Automatically Tuning the TV' procedure at the start of this manual. You can however carry out this operation manually using the following instructions.



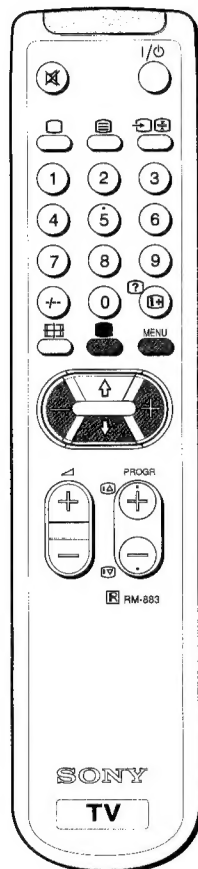
- 1 Press the MENU button on the remote control to display the menu on the TV screen.
- 2 Press the blue button to select the  $\gamma$  symbol on the TV screen then press the yellow button.
- 3 With the cursor pointing at PROGR on the TV screen as shown, press PROGR + or - button on the remote control to allocate a programme number to the channel (eg PROGR 01). For double digit numbers e.g. 55, press the -/-- button on the remote control then the corresponding numbered buttons.
- 4 Press the blue button to select the channel type (C to preset a regular channel or S to preset a cable channel) then press the yellow button to highlight the desired channel type.
- 5 Press the blue button to select the tuning bar scale then press the yellow or red button once to start the channel search. (Yellow to search up the scale or red to search down). When a channel is found it appears on the TV screen.
- 6 If you do not wish to store this channel on the programme number you selected, press the yellow or red button to continue searching for the desired channel.
- 7 If this is the channel you wish to store, press the blue button to select the  $\gamma$  symbol on the screen then press the yellow button to store.
- 8 Repeat steps 3 to 7 if you wish to store more channels then press the MENU button to remove the menu from the TV screen.



## Additional TV Features

### Fine-Tuning Channels

If a channel is slightly off tune, you can use this fine tune procedure to obtain a better picture reception.



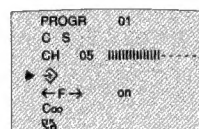
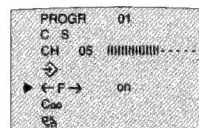
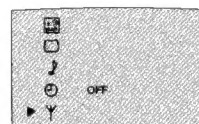
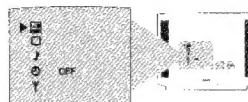
**1** With the channel you wish to fine-tune on the screen, press the MENU button on the remote control. The menu display appears on the TV screen.

**2** Press the blue button on the remote control to select the  $\Psi$  symbol on the TV screen then press the yellow button.

**3** Press the blue button to select the  $\leftarrow F \rightarrow$  symbol on the TV screen then press the red or yellow button to adjust the tuning.

**4** Press the blue button to select the  $\diamond$  symbol on the TV screen then press the yellow button to store.

**5** Press the MENU button to remove the menu from the TV screen.



## Optional Connections

### Using Optional Equipment

You can connect optional audio or video equipment to your TV, such as a VCR, a camcorder or video games as shown.

### Select and View the Input Signal

**1** Connect your equipment to the designated TV socket.

**2** Press the  $\odot$  button repeatedly on your remote control until the correct input symbol appears on the TV screen.

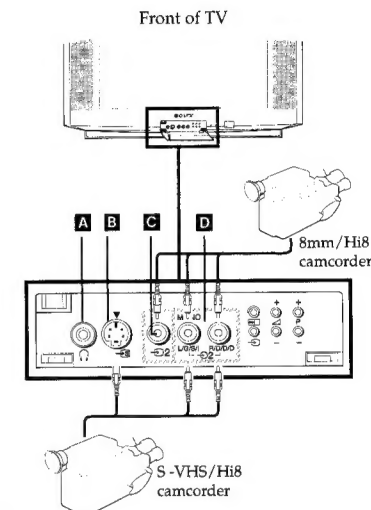
#### Symbol Input signals

- $\odot 1$ 
  - Audio/video input signal through the Euro AV connector **F**
  - RGB input signal through the Euro AV connector **F**
- $\odot 2$ 
  - Audio/video input signal through the Euro AV connector **E** or the phono sockets **C** and **D**
  - S video input signal through the socket **B**

**3** Switch on the connected equipment.

**4** To return to normal TV picture, press the  $\square$  button on the remote control.

**Note:** To avoid picture distortion, do not connect equipment to the **B**, **C** or **E** connectors at the same time.



## Additional Information

### Connecting a VCR

We recommend you tune in the VCR signal to TV programme number '0' using the 'Manually Tuning in the TV' section of this instruction manual.

### Connecting Headphones

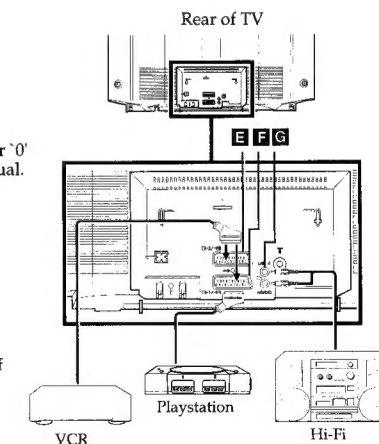
Plug in your headphones to the socket **A** on the front of the TV set.

### Connecting Decoders

Plug in decoders to the socket **F** on the rear of the TV.












### Connecting to External Audio Equipment

Plug in your Hi-Fi equipment to the **G** sockets on the rear of the TV if you wish to amplify the audio output from the TV.



## Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	<ul style="list-style-type: none"> <li>• Plug the TV in.</li> <li>• Press the  button on the front of TV.</li> <li>• If the  indicator is on press  button or a programme number button on the remote control.</li> <li>• Check the aerial connection.</li> <li>• Check that the selected video source is on.</li> <li>• Turn the TV off for 3 or 4 seconds and then turn it on again using the  button on the front of the TV.</li> </ul>
Poor or no picture (screen is dark), but good sound	<ul style="list-style-type: none"> <li>• Using the MENU system, select the Picture Adjustment display. Adjust the brightness, picture and colour balance levels.</li> <li>• From the Picture Adjustment display select  to return to the factory settings.</li> </ul>
Poor picture quality when watching a RGB video source.	<ul style="list-style-type: none"> <li>• Press the  button repeatedly on the remote control until the RGB symbol  is displayed on the screen.</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <li>• Press the  +/- button on the remote control.</li> <li>• If  is displayed on the screen, press the  button on the remote control.</li> </ul>
No colour on colour programmes	<ul style="list-style-type: none"> <li>• Using the MENU system, select the Picture Adjustment display. Adjust the colour balance.</li> <li>• From the Picture Adjustment display select  to return to the factory settings.</li> </ul>
Distorted picture when changing programmes or selecting teletext	<ul style="list-style-type: none"> <li>• Turn off any equipment connected to the 21 pin Euro connector on the rear of the TV.</li> </ul>
Remote control does not function	<ul style="list-style-type: none"> <li>• Replace the batteries.</li> </ul>

- If you continue to have these problems, have your TV serviced by qualified personnel.
- NEVER open the casing yourself.

## Specifications

### TV system

B/G/H

### Colour system

PAL, SECAM

NTSC 3.58, 4.43 (only Video In)

### Channel coverage

VHF: E2-E12

UHF: E21-E69

HYPER: S1-S46

### Picture tube

KV-25C5D:

Super Trinitron

Approx. 63 cm (25 inches) (Approx. 59 cm picture measured diagonally),

110° deflection

KV-29C5D:

Super Trinitron

Approx. 72 cm (29 inches) (Approx. 68 cm picture measured diagonally),

110° deflection


### Inputs


#### • Rear Terminals


 21-pin Euro connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output

 21-pin Euro connector (CENELEC standard) including audio/video input, S-video input, Monitor audio/video output

#### • Front Terminals


 2 video input - phono jack

 2 audio inputs - phono jacks

 S video input - 4 pin DIN

### Outputs

 Headphones jack - minijack stereo

 Audio outputs - phono jacks

### Sound output:

2 x 10 W (RMS)

### Power consumption

KV-25C5D: 97 W

KV-29C5D: 108 W

### Standby Power consumption

1 W

### Dimensions (wxhxd)

KV-25C5D: Approx. 717 x 507 x 494 mm

KV-29C5D: Approx. 794 x 567 x 545 mm

### Weight

KV-25C5D: Approx. 33 kg

KV-29C5D: Approx. 43 kg

### Accessories supplied

RM-883 Remote Control (1)

IEC designated batteries (2)

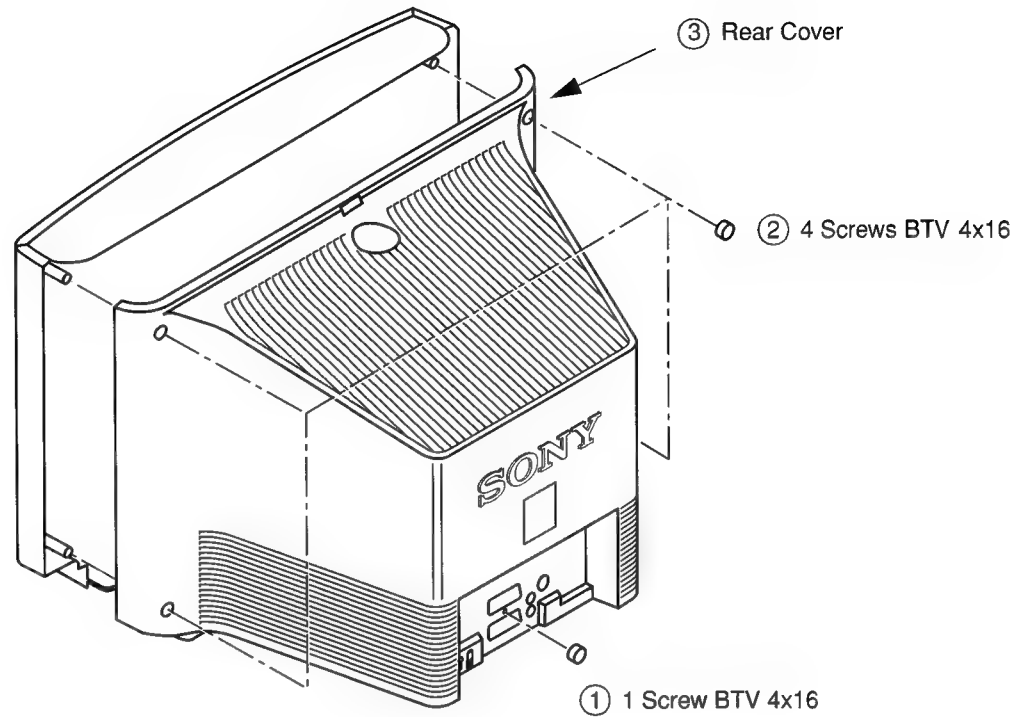
### Other features

TELETEXT, Fastext, TOPtext

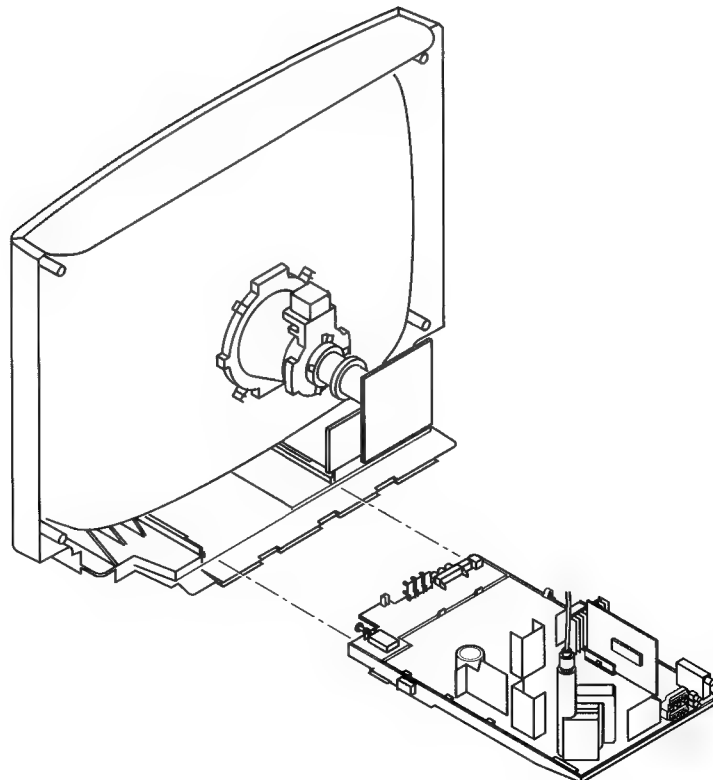
Design and specifications are subject to change without notice.

## SECTION 2 DISASSEMBLY

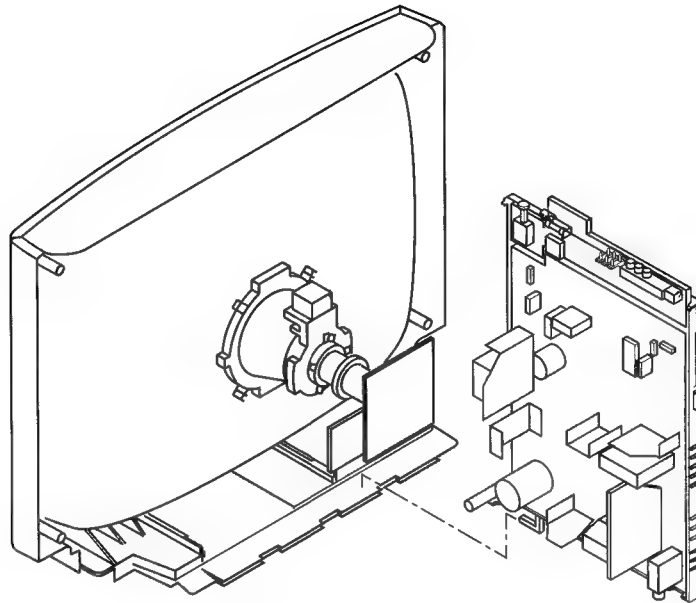
### 2-1. REAR COVER REMOVAL



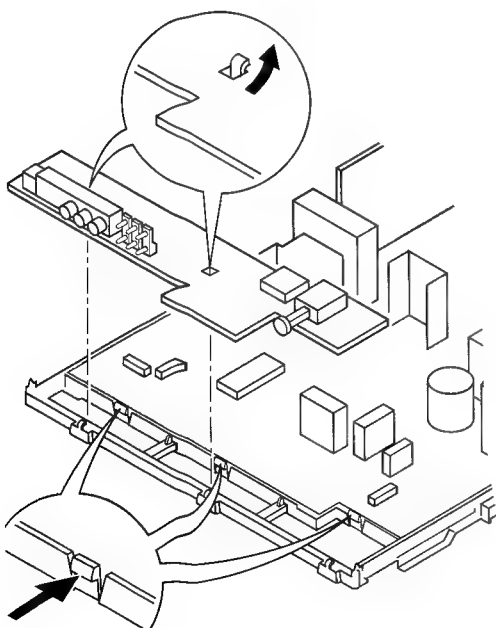
### 2-2. CHASSIS ASSY REMOVAL



## 2-3. SERVICE POSITION



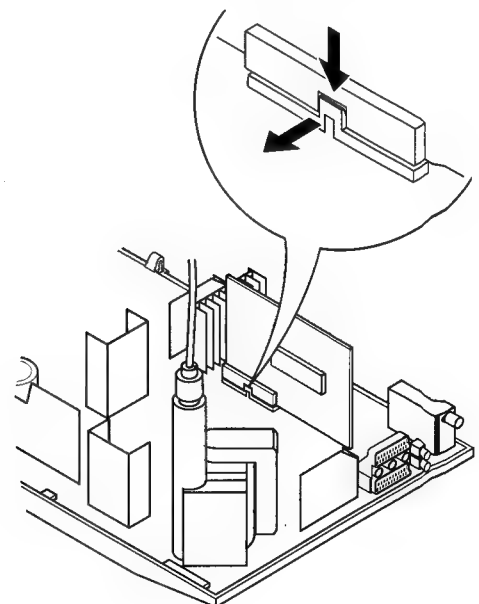
## 2-4. H1 BOARD REMOVAL



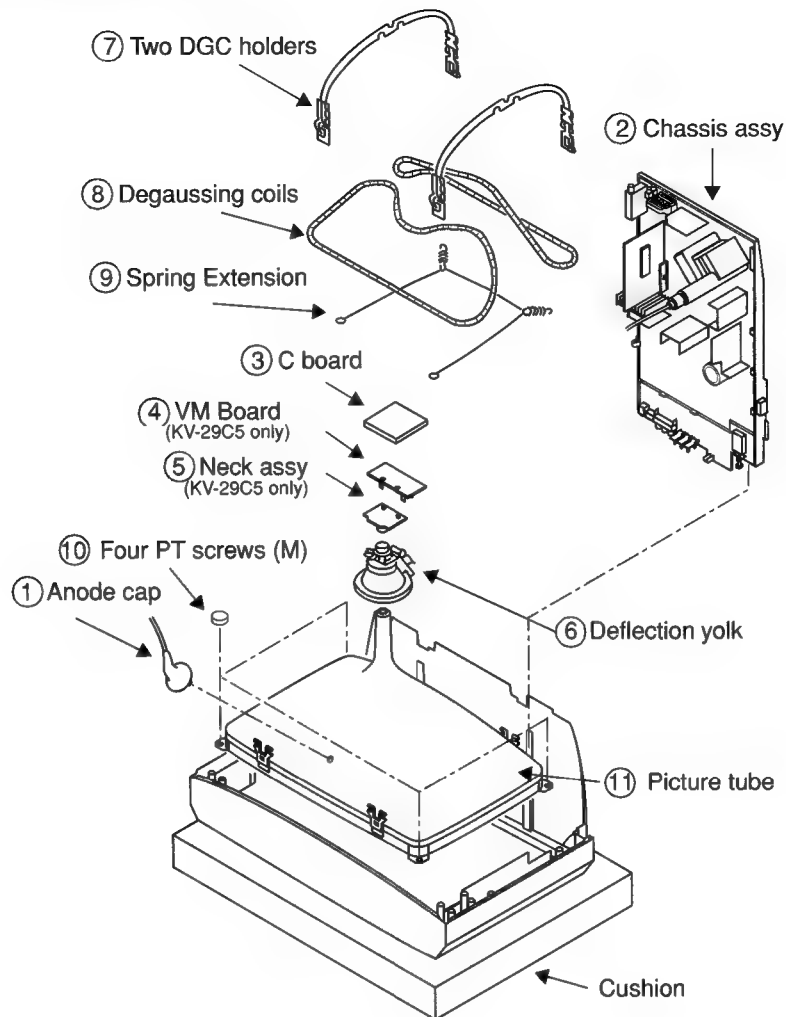
To release, push the claws in the direction of the arrow as indicated.

## 2-5. S1 BOARD REMOVAL

Release the clip indicated.



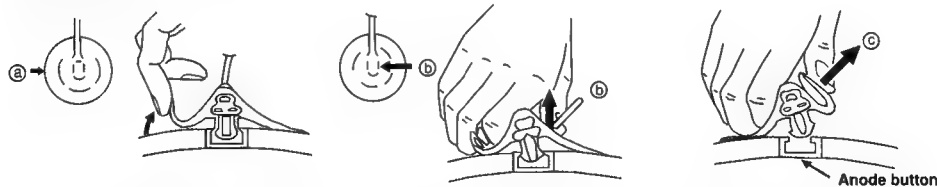
## 2-6. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

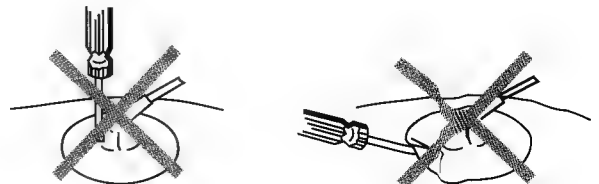
**Note :** Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

#### \* REMOVING PROCEDURES.



### • HOW TO HANDLE THE ANODE-CAP

- ① To prevent damaging the surface of the anode-cap do not use sharp materials.
- ② Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
- ③ A metal fitting called a shatter hook terminal is fitted inside the rubber cap. Do not turn the rubber foot over excessively this may cause damage if the shatter hook sticks out.



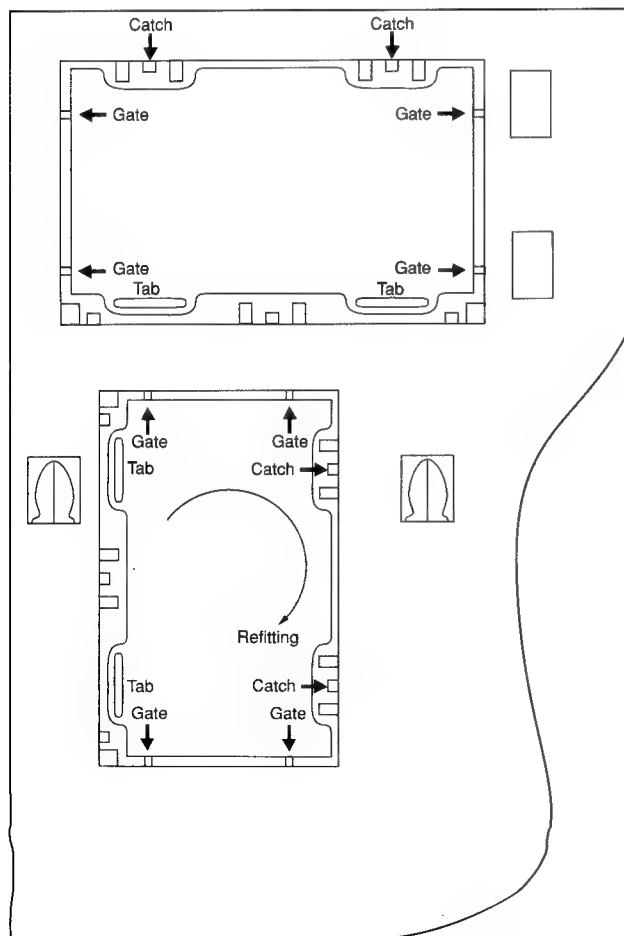
## REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

### (1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the A Board printed wiring board, the bottom plates fitted to the main chassis bracket require to be removed.

This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

**Note :** There are 2 plates fitted to the main bracket and secured by 4 gates.  
Only remove the necessary plate to gain access to the printed wiring board.

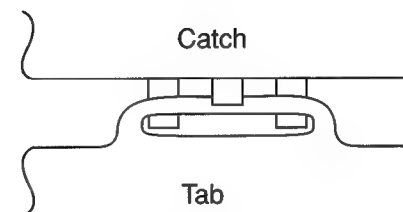


For safety reasons, on no account should the plates be removed and not refitted after servicing.

### (2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from the cut position to allow the tabs to be fitted in the catch positions.



## SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast ..... 80% [or remote control normal]

Brightness ..... 50%

Carry out the following adjustments in this order :

- 3-1. Beam Landing
- 3-2. Convergence
- 3-4. Focus
- 3-3. White balance

**Note :** Test equipment required

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.
5. DC Power supply.

### Preparation:

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with the degausser.

### 3-1. BEAM LANDING

1. Input an all-white signal from the pattern generator. Set the Contrast and Brightness to normal.
2. Set the pattern generator raster signal to all Red.
3. Move the deflection yolk forward and adjust with the purity control so that the Red is at the centre and the Blue and Green take up equally sized areas on each side of the screen. [See Fig.3-1 - 3-3].
4. Move the deflection yolk forward and adjust so that the entire screen becomes Red. [See Fig.3-1].
5. Switch the raster signal to Blue, then to Green and verify the purity condition.
6. When the position of the deflection yolk has been determined, fasten the deflection yolk with the screws.
7. If the beam does not land correctly in all the corners, use magnets to correct it. [See Fig.3-4].

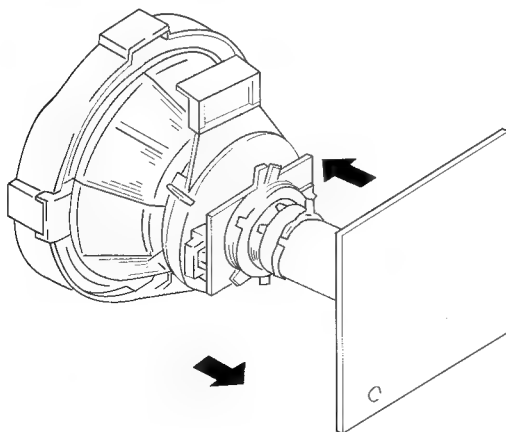


Fig. 3-1

Fig. 3-2

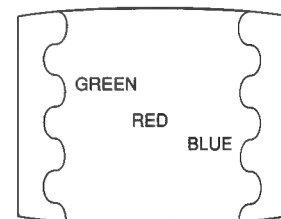
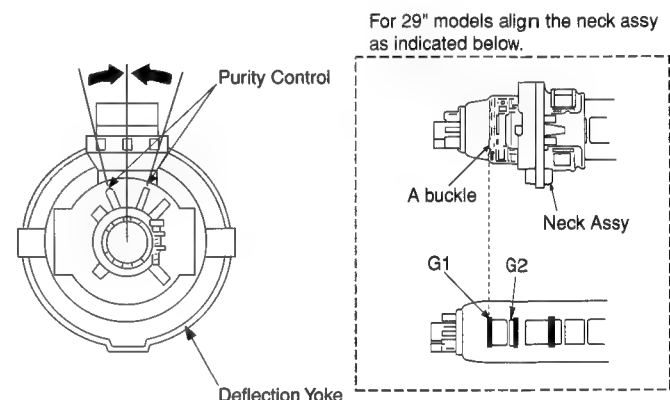


Fig. 3-3

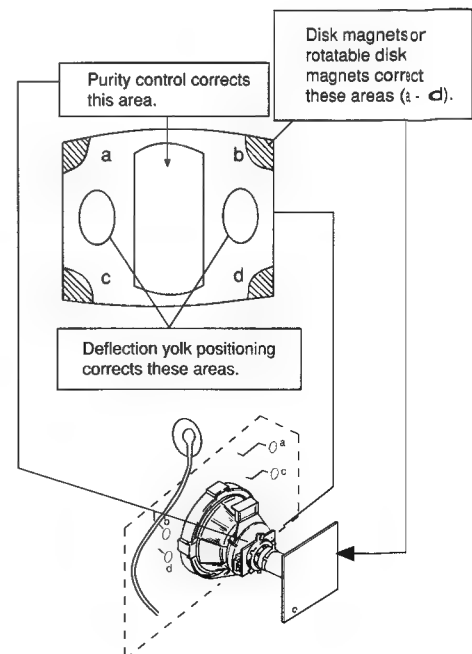


Fig. 3-4

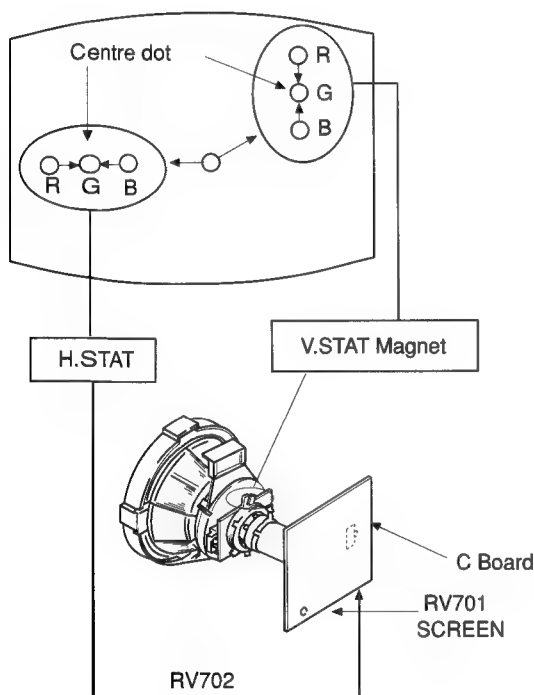


## 3-2. CONVERGENCE

### Preparation:

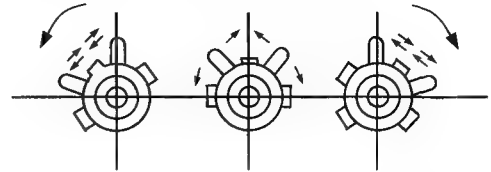
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the Brightness setting.
- Input a dot pattern from the pattern generator.

#### (1) Horizontal and vertical static convergence

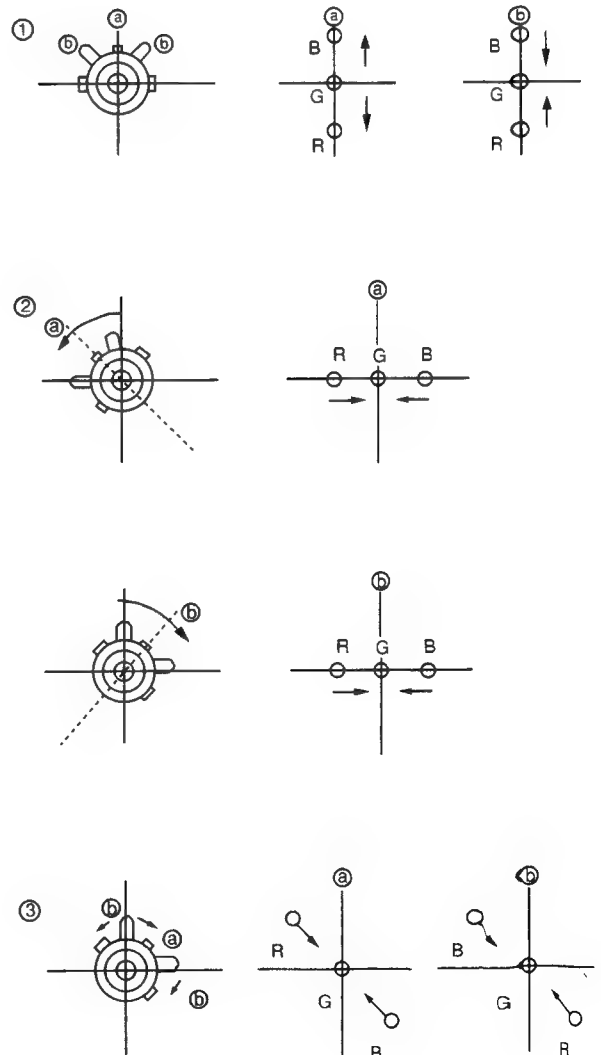


1. [Moving horizontally], adjust the H.STAT control so that the Red, Green and Blue points are on top of each other at the centre of the screen.
2. [Moving vertically], adjust the V.STAT magnet so that the Red, Green and Blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor is unable to bring the Red, Green and Blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner indicated below. [In this case, the H.STAT variable resistor and the V.STAT magnet influence each other].

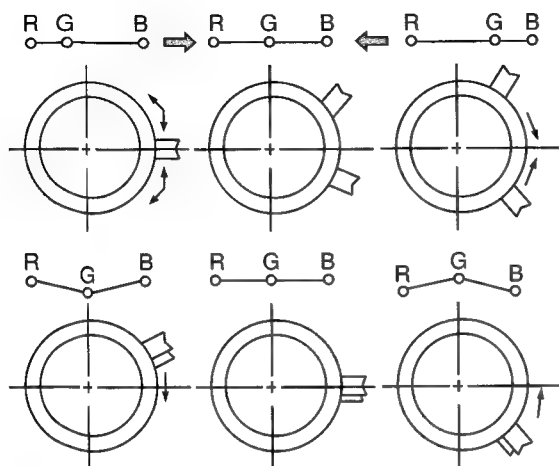
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



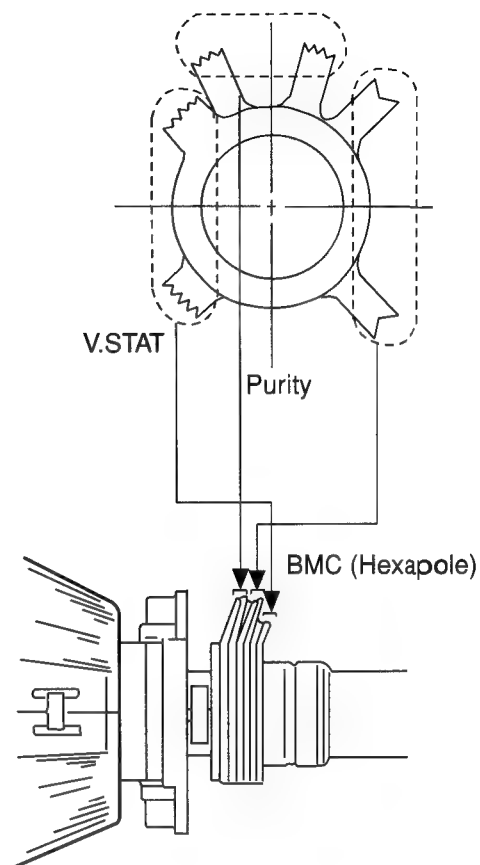
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue points move as indicated below.



## (2) Operation of the BMC (Hexapole) magnet.



- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment whilst tracking.  
Use the H. STAT VR to adjust the Red, Green and Blue dots so that they coincide at the centre of the screen [by moving the dots in the horizontal direction].

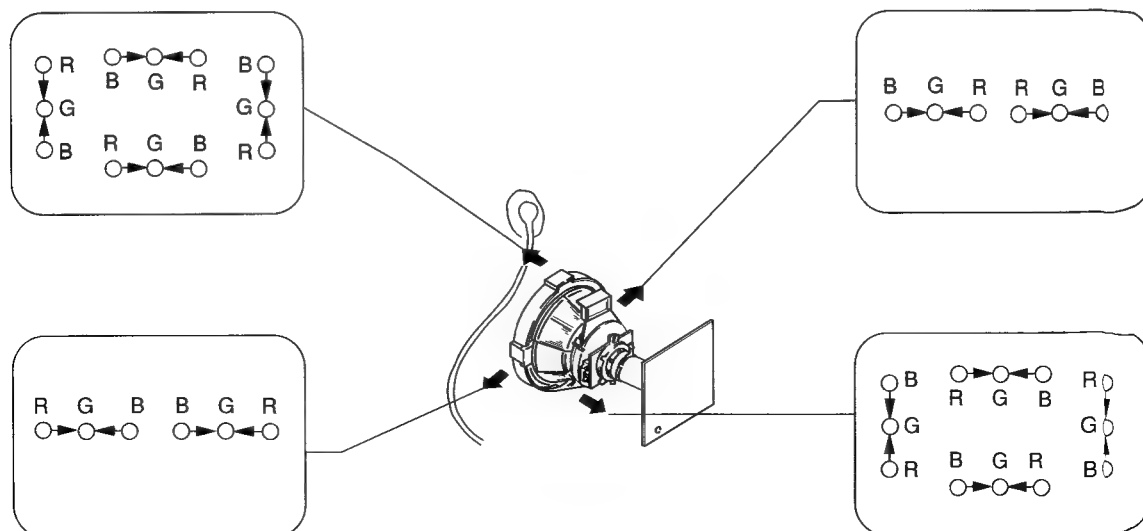


## (3) Dynamic convergence adjustment.

### Preparation:

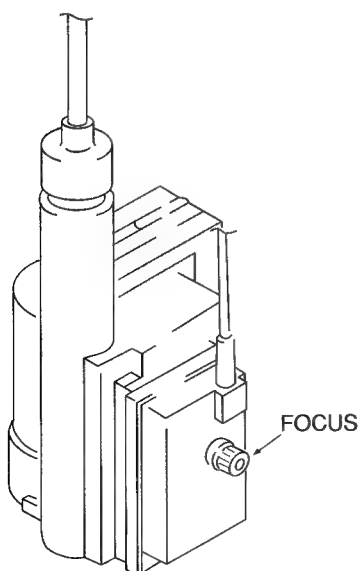
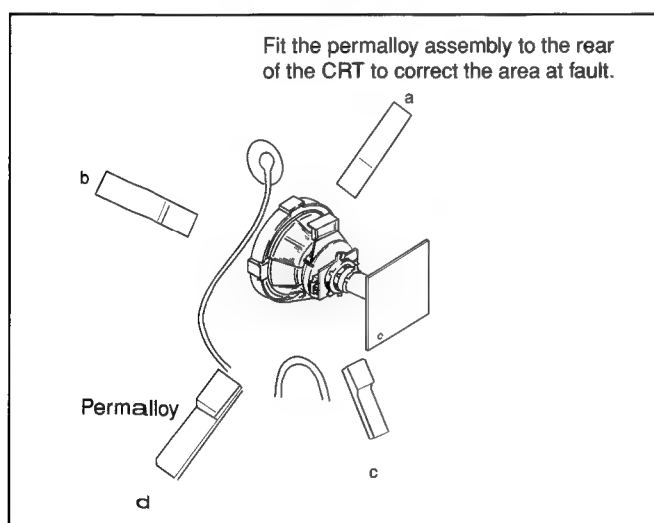
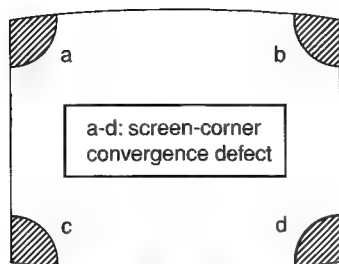
- Before starting this adjustment, adjust the horizontal and vertical static convergence.
- Slightly loosen the deflection yolk screws.

- Remove the deflection yolk spacer.
- Move the deflection yolk as indicated in the figure below and optimize the convergence.
- Tighten the deflection yolk screws.
- Re-install the deflection yolk spacer.



**(4) Screen corner convergence.**

- If you are unable to adjust the corner convergence properly, this can be corrected by the use of permalloy assemblies.

**3-3. Screen [G2], White balance****G2 Setting**

- Input a dot signal from the pattern generator.
- Set the Picture, Brightness and Colour to minimum.
- Apply 170Vdc from an external power supply to the R, G and B cathodes of the CRT.
- Whilst watching the picture, adjust the G2 control [RV701 SCREEN] located on the C Board to the point just before the flyback return lines disappear.

**White balance adjustment**

- Input a 'PAL' all-white signal from the pattern generator.
- Enter into the Service Mode.
- Enter into the 'Picture' service menu.
- Select the 'Green drive' and adjust so that the White Balance becomes optimum.
- Select the 'Blue drive' and adjust so that the White Balance becomes optimum.
- Set the Picture to MIN.
- Set the 'R-cut-off' to 07.
- Adjust the 'G-cut-off', and the 'B-cut-off' so that the White Balance becomes optimum.
- Press the ☐ button to return to TV operation.

**PICTURE**

R - Drive	Adj
G - Drive	Adj
B - Drive	Adj
R - cut - off	Adj
G - cut - off	Adj
B - cut - off	Adj
ID - start	02
ID - stop	01
ID - level	01
Bellfo	Adj
Sub Colour	Adj
Sub Brightness	Adj

**3-4. FOCUS**

- Input a Phillips colour pattern
- Set the picture settings to normal.
- Adjust the focus control located on the Flyback transformer to bring the centre of the screen into focus.

**Note :** Bring only the centre area of the screen into focus, switch to an all-white pattern and confirm that the magenta ring is hardly noticed. To obtain optimum focus balance the focus setting between optimum screen centre focus and a reduced magenta ring level.

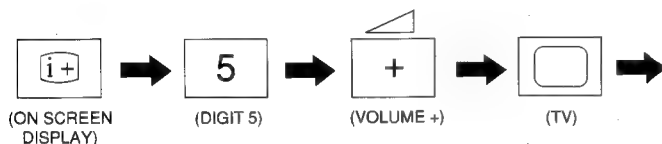
## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. ELECTRICAL ADJUSTMENTS

Service adjustments to this model can be performed using the supplied Remote Commander RM-883.

#### HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch and enter into the stand-by mode.
2. Press the following sequence of buttons on the Remote Commander.



- 'TT--' will appear in the upper right corner of the screen.  
Other status information will also be displayed.
3. Press 'MENU' on the remote commander to obtain the following menu on the screen.

TEST MENU
> Picture
Geometry
Sound
TV Status
AGC Adjust
Technical

4. Move to the corresponding adjustment item using the 'Green' [up] or 'Blue' [down] buttons on the Remote Commander.
5. Press the 'Yellow' button to enter into the required menu item.
6. Press the 'Menu' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

**Note :** The data shown in the 'TV STATUS' table is dependant on destination and country.

#### PICTURE

R - Drive	Adj
G - Drive	Adj
B - Drive	Adj
R - cut - off	Adj
G - cut - off	Adj
B - cut - off	Adj
ID - start	02
ID - stop	01
ID - level	01
Bellfo	Adj
Sub Colour	Adj
Sub Brightness	Adj

#### GEOMETRY

V centre	Adj
V size	Adj
V Lin	Adj
S Corr	Adj
H Cent	Adj
H Size	Adj
Pin Amp	Adj
Corner Pin	Adj
Pin Phase	Adj
V Bow	Adj
V Angle	Adj
Upper V Lin	Adj
Lower V Lin	Adj
Left HBLK	07
Right HBLK	07
CD Mode (AV)	01

#### SOUND

Nicam Error Lower	20
Nicam Error Upper	80
Nicam Error Rate	xx [Status only]
AGC Gain Level	xx [Status only]

#### TV STATUS

Destination	A/L/E/U/D/B/K/R
Text Language	East/West

## TECHNICAL

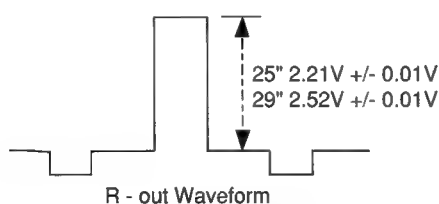
GD - Secam	30
BD - Secam	31
RC - Secam	11
GC - Secam	19
BC - Secam	10
GD - Sports	30
BD - Sports	36
RC - Sports	14
GC - Sports	15
BC - Sports	17
Y - Delay (AV)	07

## SUB BRIGHTNESS ADJUSTMENT

1. Input a Phillips colour pattern.
2. Press 'TEST' 'TEST' 13 on the Remote Commander.
3. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

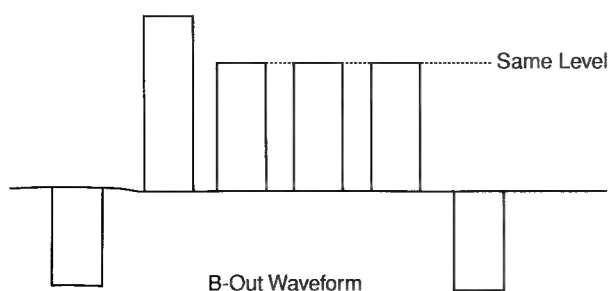
## SUB CONTRAST ADJUSTMENT

1. Input a video signal that contains a small 100% white area on a black background
2. Set the picture control to maximum. ['TT01']
3. Connect an oscilloscope to Pin 1 of CN504 [A Board].
4. Enter into the 'Picture' service menu.
5. Adjust the 'R - Drive' data to obtain the following waveform.



## SUB COLOUR ADJUSTMENT

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to Pin 3 of CN504 [A Board].
3. Enter into the 'Picture' service menu.
4. Adjust the 'Sub Colour' data so that the Cyan, Magenta and Blue colour bars are of equal levels as indicated below.



**Note:** Ensure that no signal is applied to the Antenna socket while carrying out the following IF adjustments.

## SYSTEM B/G, D/K, I &amp; L I.F ADJUSTMENT

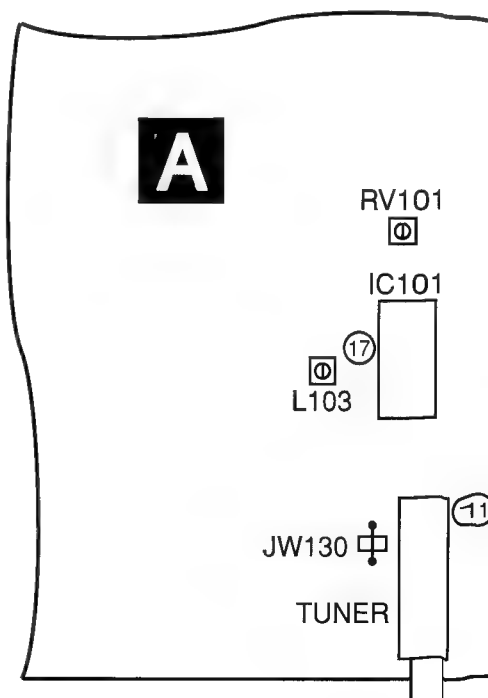
1. Input a 38.9Mhz carrier signal at 100dBuV to Pin 11 [IF output] of the tuner [TU101].
2. Measure the voltage at Pin 17 of [IC101].
3. Adjust L103 [A Board] to obtain a voltage of 2.5V +/- 0.3V.

## SYSTEM L BAND 1 I.F ADJUSTMENT

1. Input a 34.0MHz carrier signal at 100dBuV to Pin 11 [IF output] of the tuner [TU101].
2. Select 'system L' + C00 [channel 00].
3. Measure the voltage at Pin 17 [IC101].
4. Adjust RV101 [A Board] to obtain a voltage of 2.5V +/- 0.3V.

## TUNER AGC ADJUSTMENT

1. Receive a signal of 65dBuV / 75 ohm terminated, via the tuner antenna socket.
2. Connect a voltmeter to JW130 [A Board].
3. Enter into the 'Test Menu'.
4. Select the 'AGC Adjust' menu item.
5. Adjust the data using the Yellow and Green buttons on the Remote Commander to obtain a voltage of 3.0V +/- 0.2V.

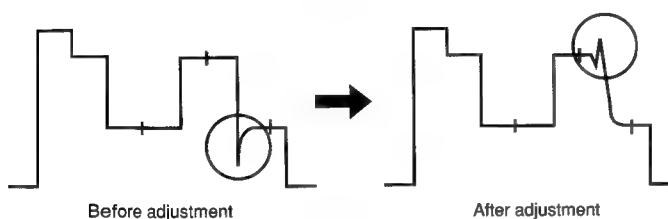


A Board component side

**BELL FILTER ADJUSTMENT (Secam models only).**

**Note :** Ensure that the TV set has been powered up for at least 1 minute to allow for drift before carrying out the following adjustment.

1. Input a video SECAM Colour Bar signal via AV1.
2. Connect an oscilloscope to pin 1 of CN504 [R-OUT] on the A board.
3. Enter into the 'Picture' menu and select 'Bell-f0'.
4. Decrease the register of 'Bell-f0' until the following waveform change between RED and BLUE is obtained.



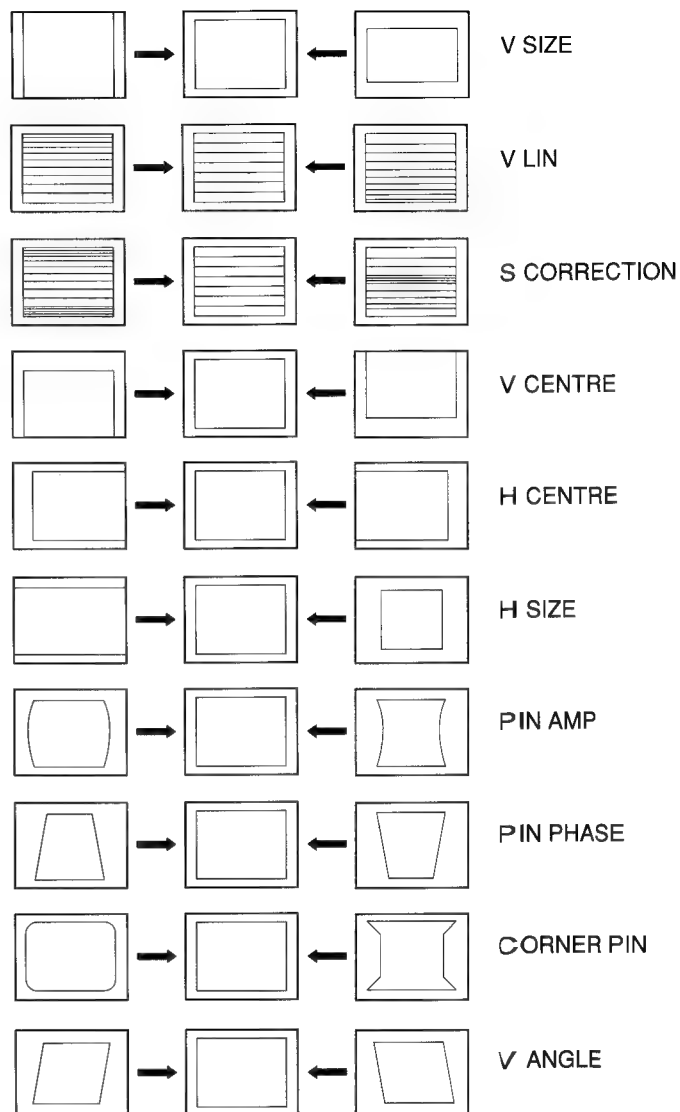
5. When the correct waveform has been obtained add an additional 7 steps to the register.

**DEFLECTION SYSTEM ADJUSTMENT**

1. Enter into the 'Geometry' service menu.
2. Select and adjust each item in order to obtain the optimum image.

**GEOMETRY**

V centre	Adj
V size	Adj
V Lin	Adj
S Corr	Adj
H Cent	Adj
H Size	Adj
Pin Amp	Adj
Corner Pin	Adj
Pin Phase	Adj
V Bow	Adj
V Angle	Adj
Upper V Lin	Adj
Lower V Lin	Adj
Left HBLK	07
Right HBLK	07
CD Mode (AV)	01



## 4-2. TEST MODE 2:

Is available by pressing 'TEST' button twice, OSD 'TT' appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode, or press the ☐ TV button on the remote commander.

00	Cancel Test mode
01	Picture maximum
02	Picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing mode On/Off
08	Set shipping conditions
09	Display TV Status
10	No function
11	Sub Picture Adjustment
12	Sub Colour Adjustment
13	Sub Brightness Adjustment
14	Text H position Adjustment
15	Rotation test
16	Picture level 50%
17	Audio mute ON
18	Disable Blanking
19	No function
20	No function
21	Destination A
22	Destination L
23	Destination E
24	Destination U
25	Destination D
26	Destination B
27	Destination K
28	Destination R
29	No function
30	No function
31	Auto shutoff Disable/Enable
32	RGB priority Disable/Enable
33	Rotation On/OFF
34	Text language East/West
35	Wide CRT/4:3 CRT
36	VM ON/OFF test
37	No function
38	No function
39	No function
40	No function
41	Re-initialize the NVM [Only when Prog=59]

42	Re-initialise geometry settings [Only when Prog=59]
43	No function
44	No function
45	No function
46	No function
47	No function
48	Set NVM as NON Virgin [Only when Prog=59]
49	Set NVM as Virgin [Only when Prog=59]
50	No function
51	No function
52	No function
53	No function
54	No function
55	No function
56	No function
57	No function
58	No function
59	No function
60	No function
61	Auto AGC Adjust
62	Alternative Dest B Autotuning
63	Enable/Disable Y/C input
64	Signal Quality Check for Auto Tune
65	Signal Quality NOT Checked for Auto Tune
66	No function
67	Manual AGC Adjust
68 -100	No function

### 4-3. FE-1 SELF DIAGNOSTIC SOFTWARE

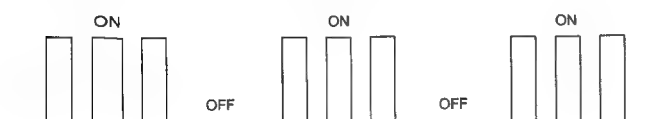
The identification of errors within the FE-1 chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See Table 1., non fatal errors are reported using this method. Each time the software detects an error it is stored within the NVM. See Table 2.

**Table 1**

ERROR	LED ERROR COUNT
No error	00
Not allowed (may be confused with Sircs response flash!)	01
Protection circuit trip < ANY TIME >	02
Reserved	03
No vertical sync	04
AKB	05
IIC bus clock and/or data lines low at Power ON	06
NVM no IIC bus acknowledge at Power ON	07
Jungle controller no IIC acknowledge at Power ON	08
Tuner no acknowledge at Power ON	09
Sound processor no acknowledge at Power ON	10

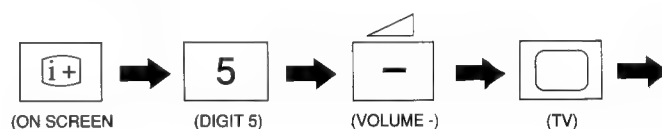
#### Flash Timing Example : e.g. error number 3

StBy LED



#### How to enter into Table 2

1. Turn on the main power switch of the TV set and enter into the 'Standby Mode'.
2. Press the following sequence of buttons on the Remote Commander.



3. The following table will be displayed indicating the error count.

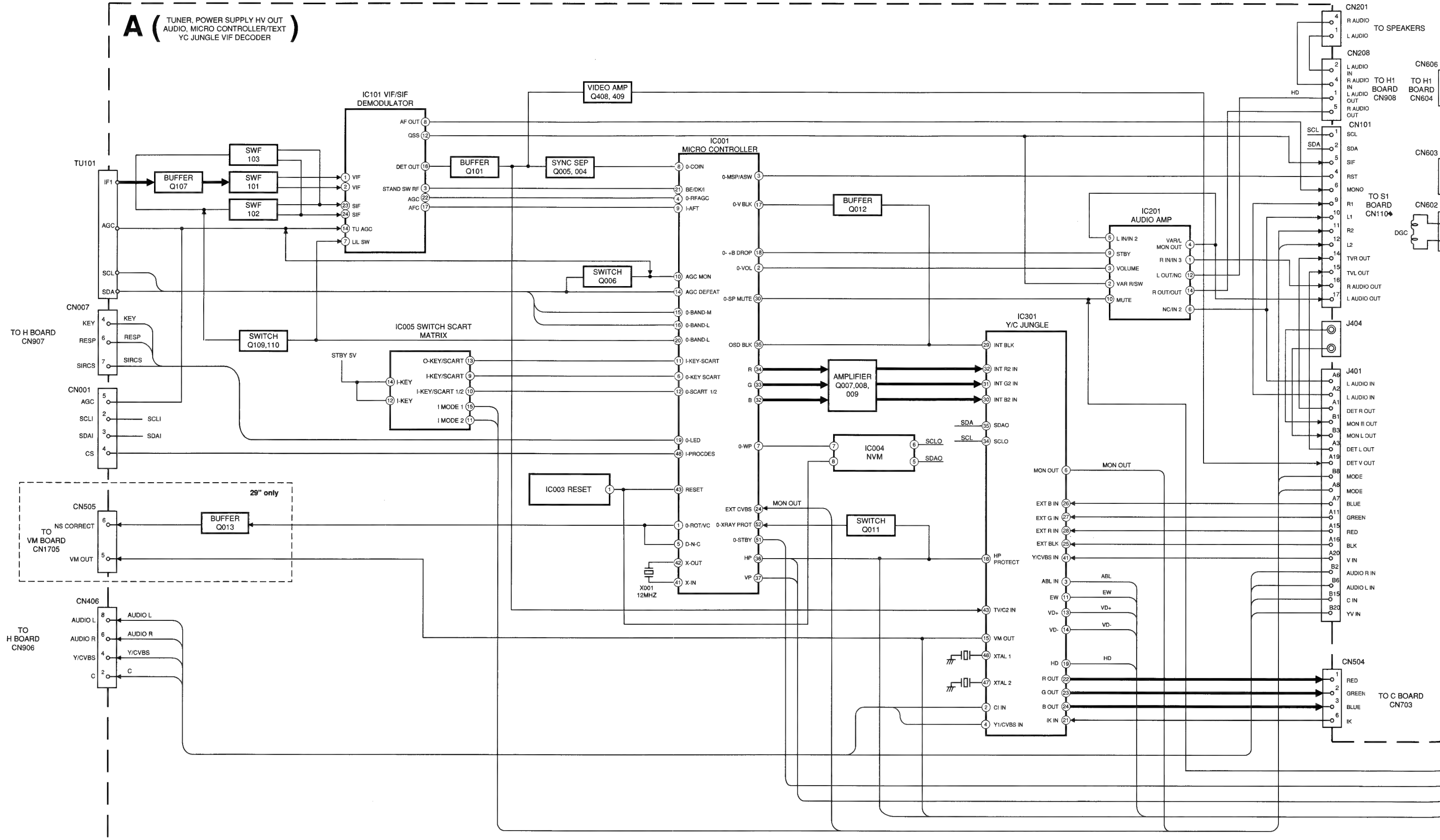
**Table 2**

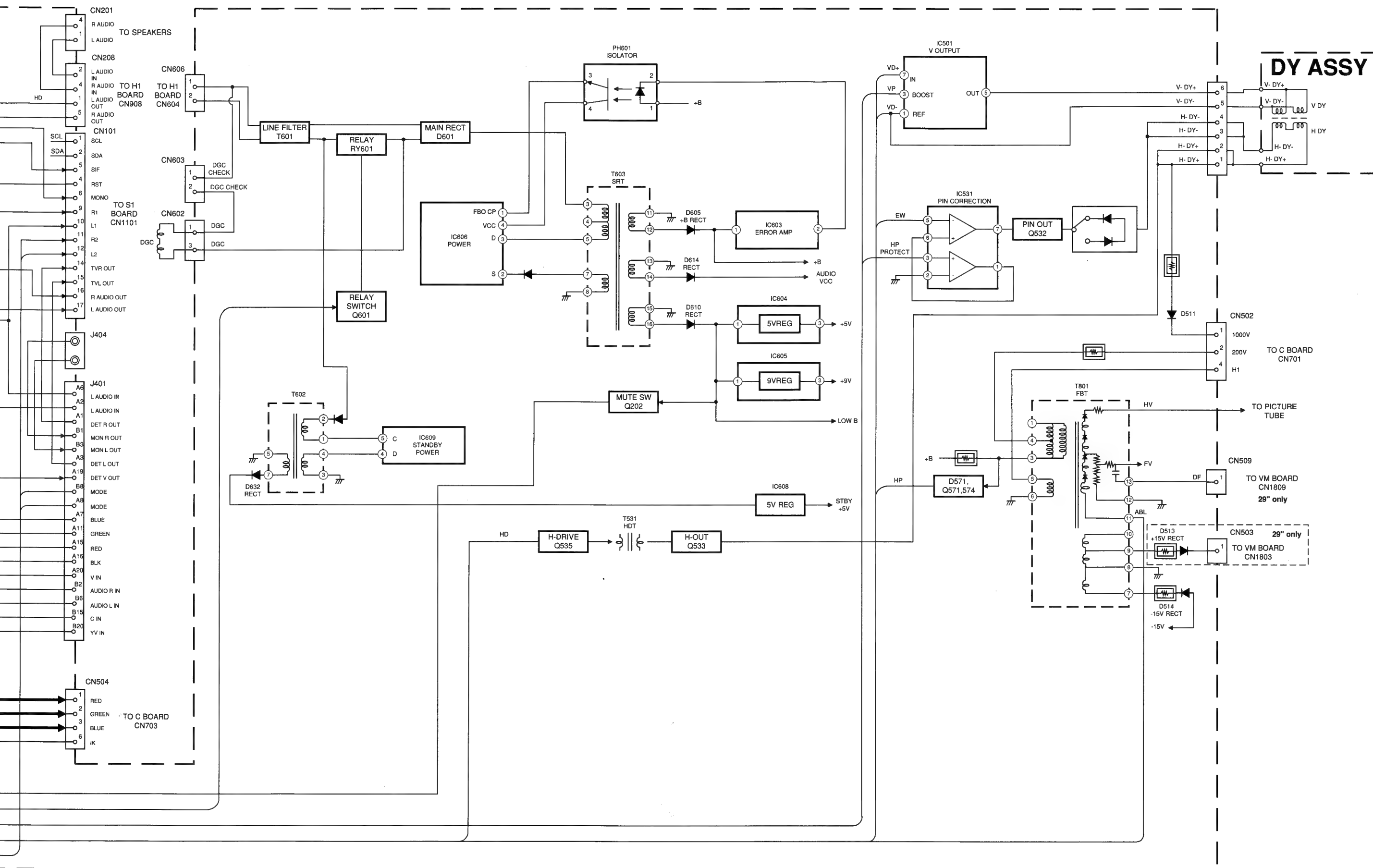
Error	Times
2	-
3	-
4	-
5	-
6	-
7	-
8	-
9	-
10	-

**Note:** To clear the error count data press '80' on the Remote commander.

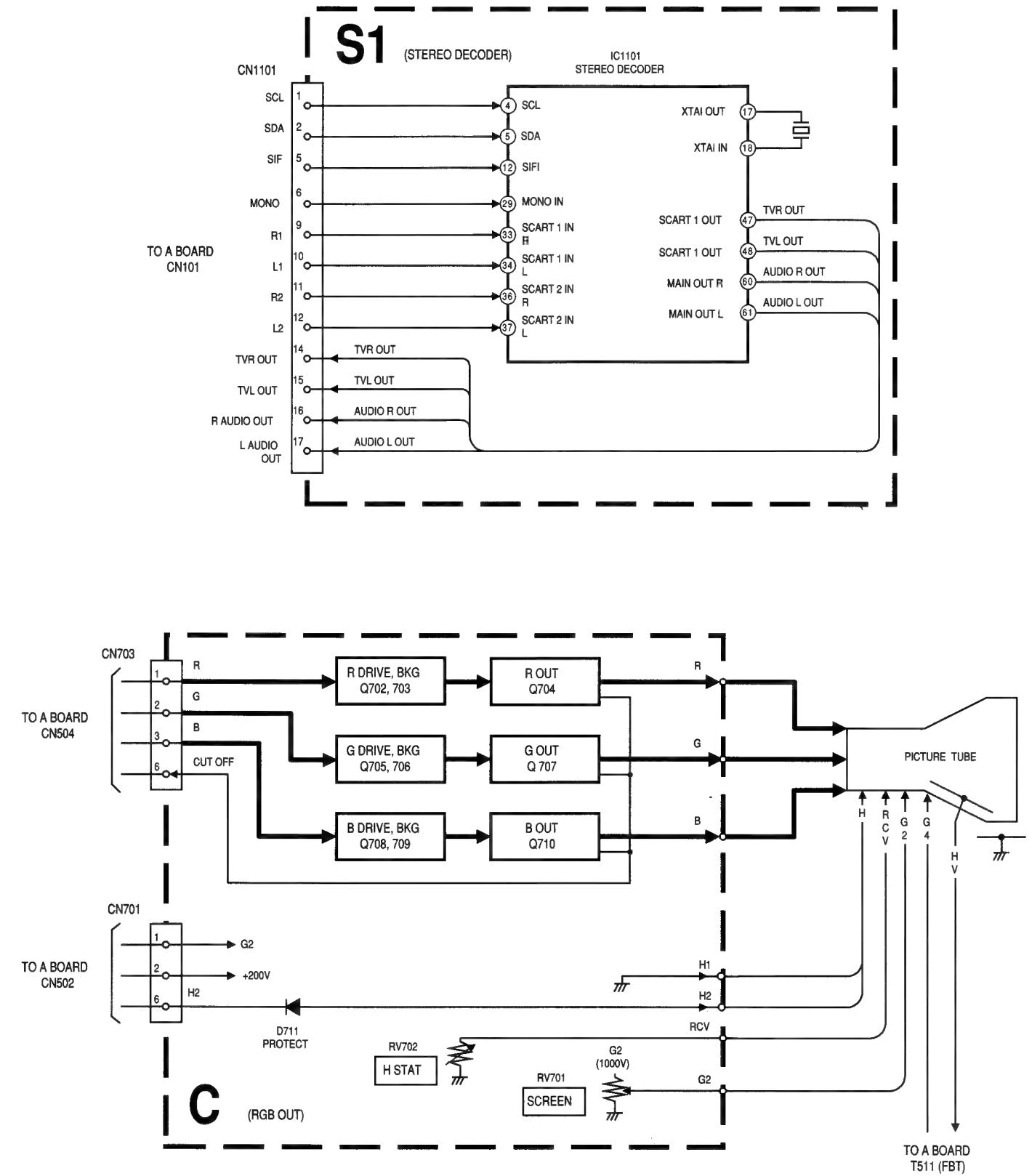
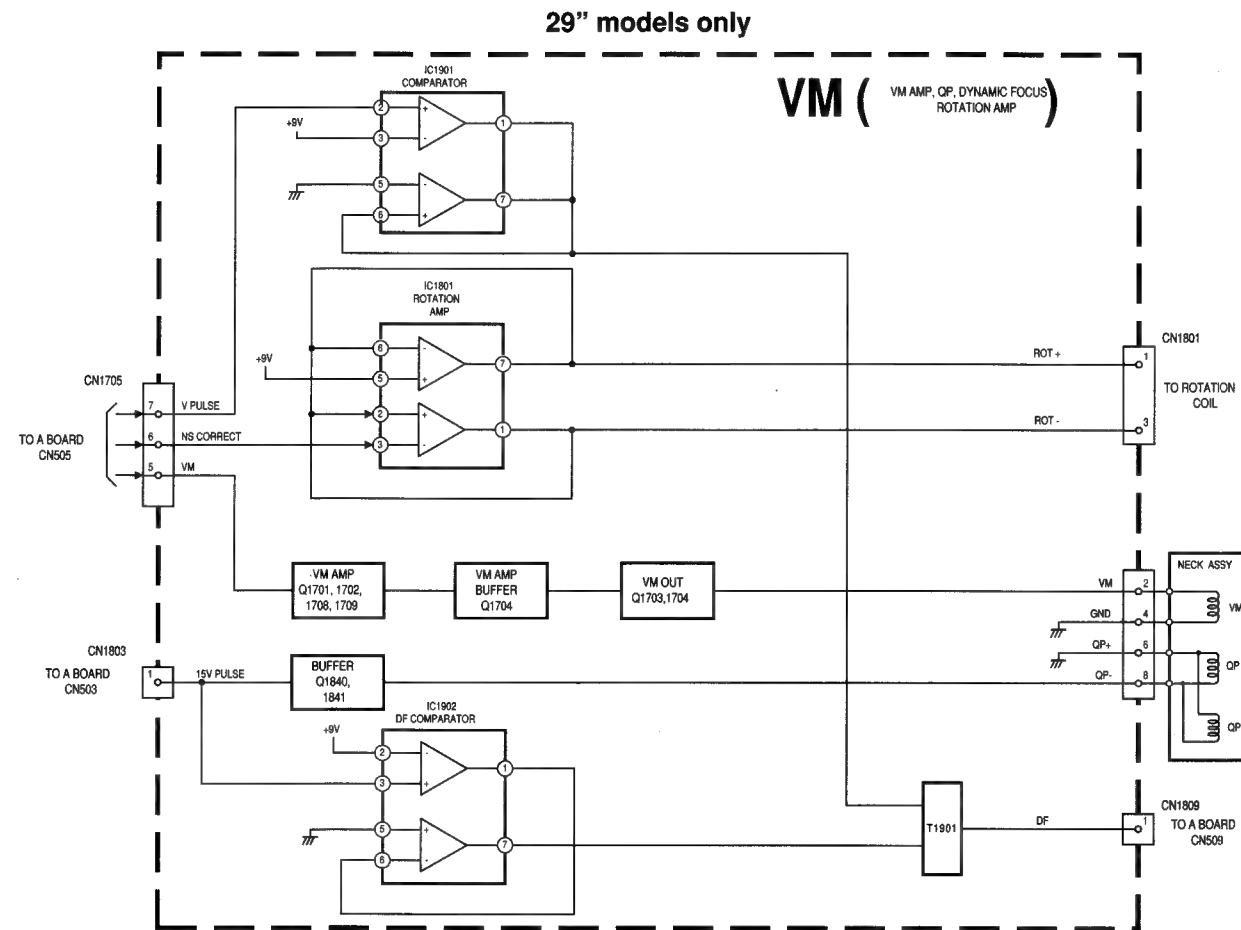


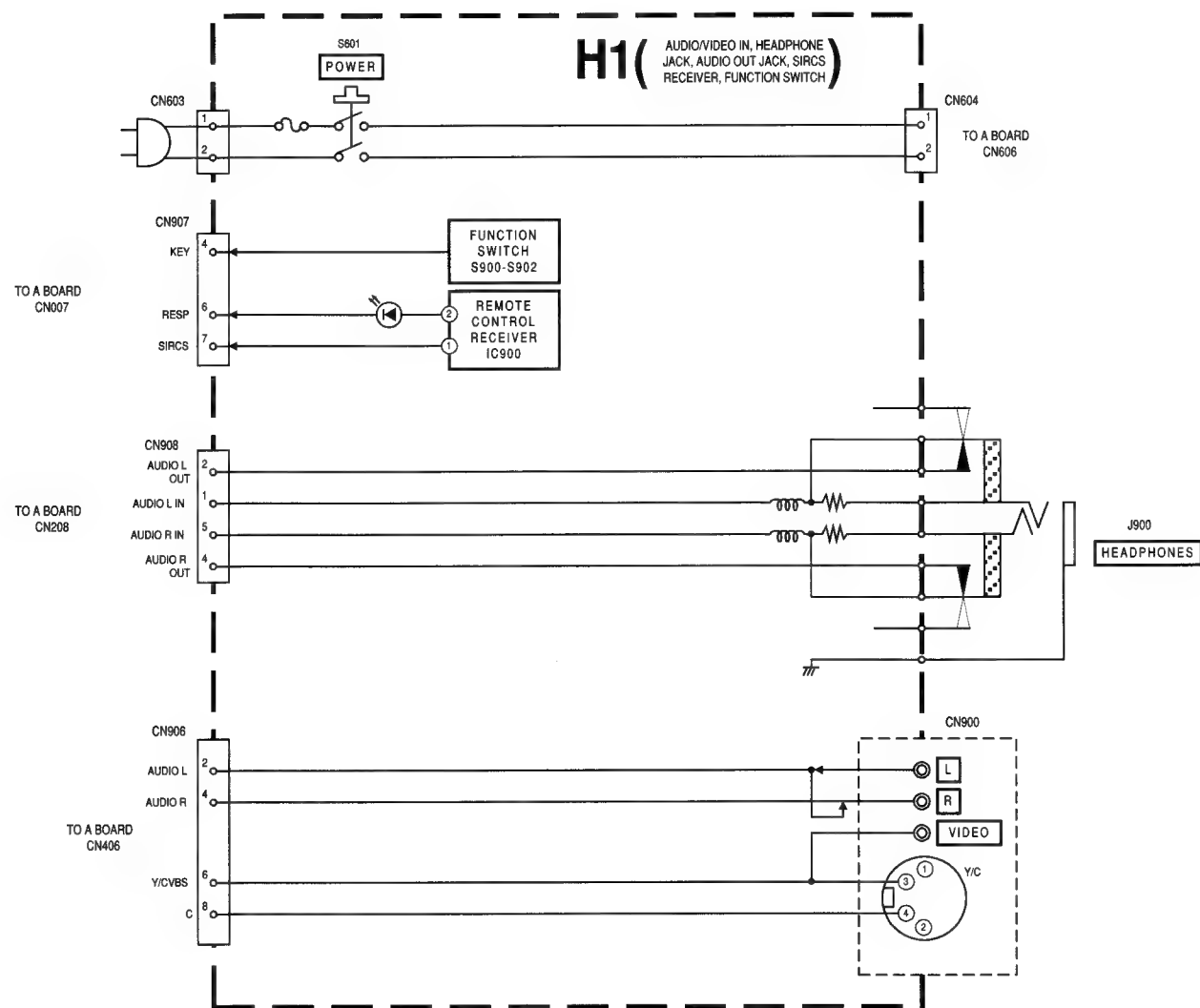
## 5-1 BLOCK DIAGRAMS (1)



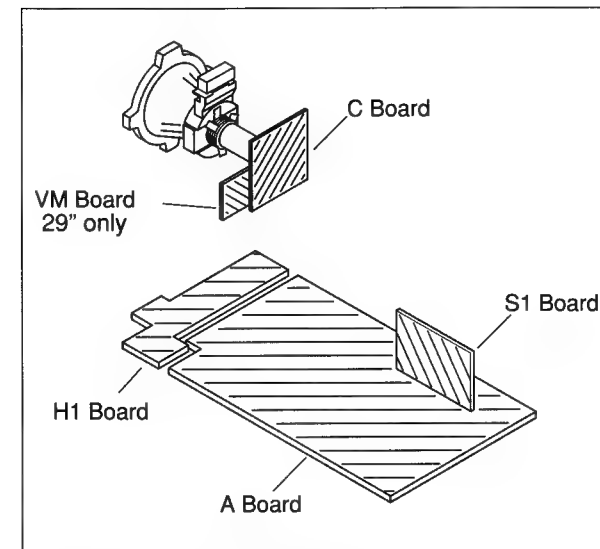


## 5-1 BLOCK DIAGRAMS (2)





## 5-2. CIRCUIT BOARD LOCATION



## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

### Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
- pF :  $\mu\text{F}$  50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm  
Electrical power rating : 1/4W

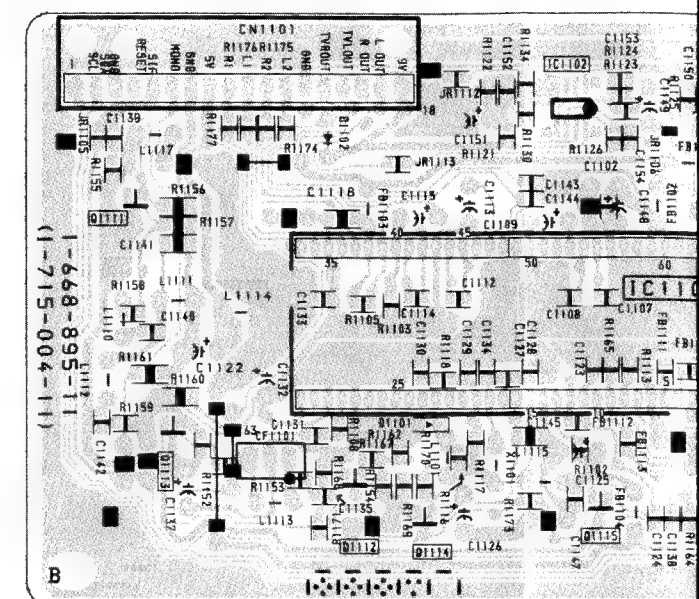
- Chip resistors are 1/10W
- All resistors are in ohms.  
k = 1000 ohms, M = 1000,000 ohms
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerences.
- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

## Reference Information

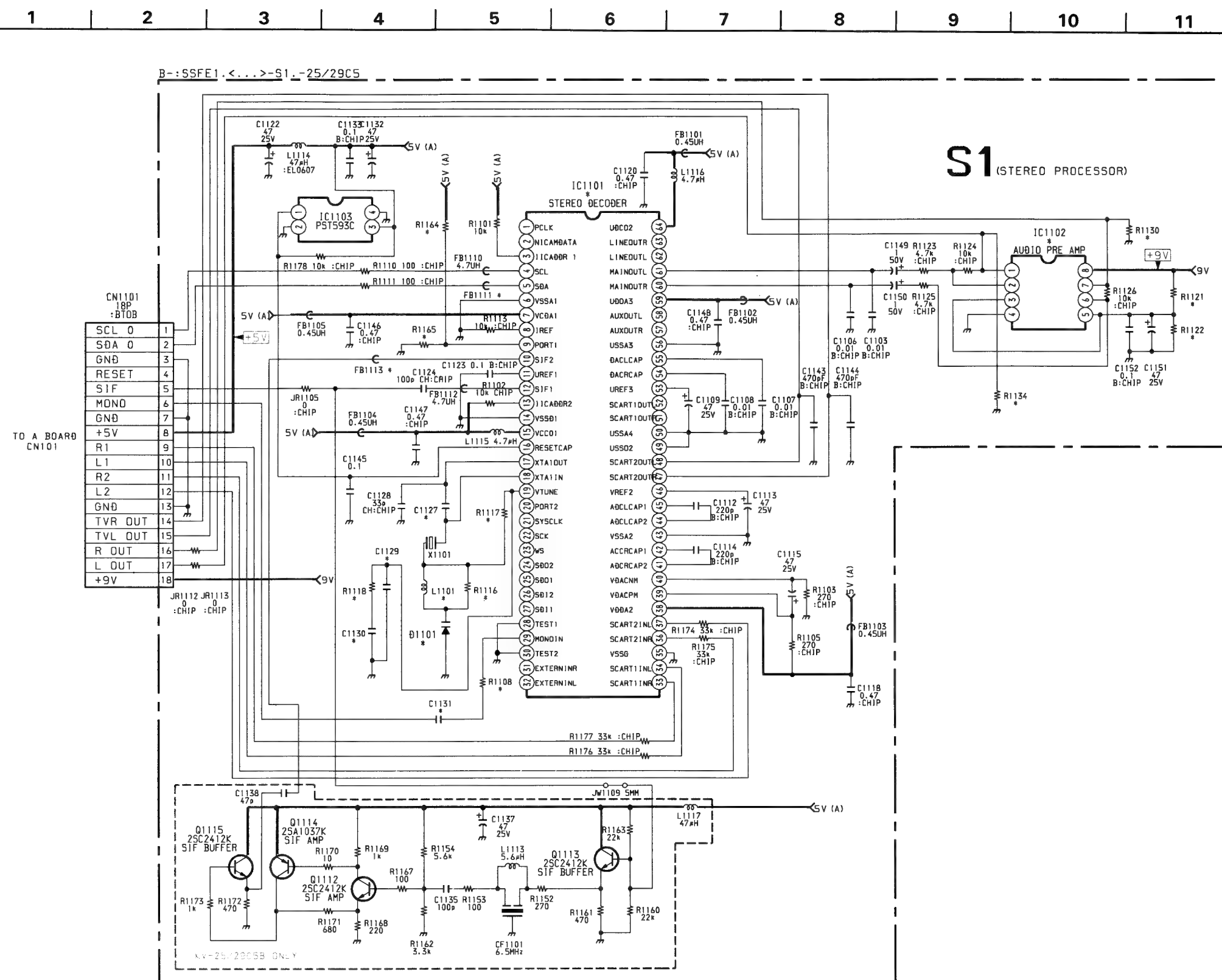
RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	⊗	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

**Note:** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.

**Note:** Les composants identifiés par une trame et par une marque  $\Delta$  sont d'une importance critique pour la securite. Ne les remplacer que par des pieces de numero specifie.



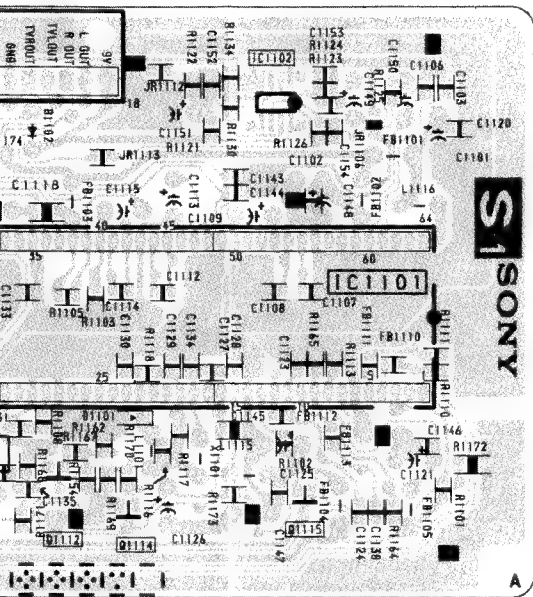
IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC1101	4	3.4
	5	3.2
	7	4.8
	8	2.3
	9	4.8
	10 - 12	2.3
	13	4.8
	15	4.8
	16	4.8
	17	2.6
	18	3.5
	19	4.0
	33 - 34	2.4
	36 - 37	2.4
	38 - 39	4.8
	41 - 42	2.4
	44 - 48	2.4
	53 - 55	2.4
59	4.8	
60 - 61	2.4	
64	4.8	
IC1102	1	4.5
	2	4.1
	3	4.5
	6	4.3
	7	3.5
	8	9.0



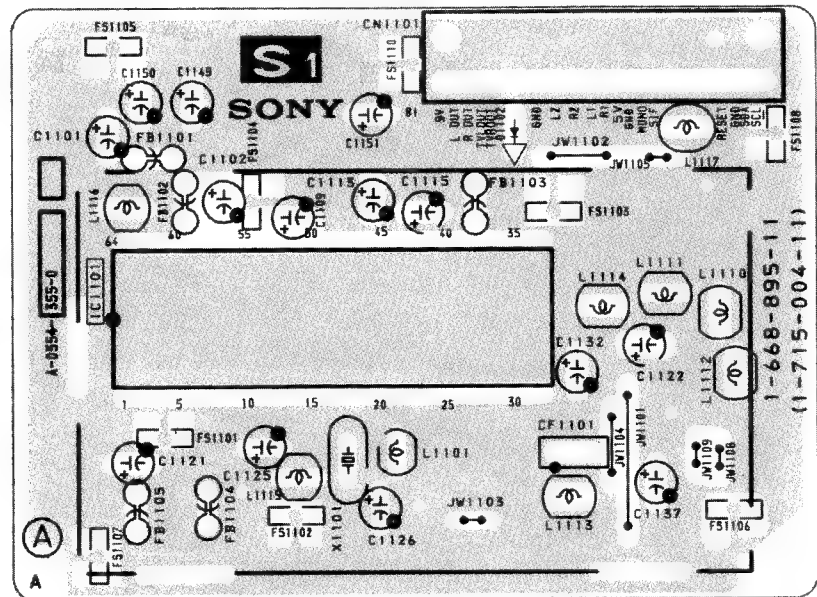
OR ]



r Side >



S1 Board < Component Side >



## VOLTAGE TABLE

IC Voltage Table	
Pin No	Voltage (V)
4	3.4
5	3.2
7	4.8
8	2.3
9	4.8
10 - 12	2.3
13	4.8
15	4.8
16	4.8
17	2.6
18	3.5
19	4.0
33 - 34	2.4
36 - 37	2.4
38 - 39	4.8
41 - 42	2.4
44 - 48	2.4
53 - 55	2.4
59	4.8
60 - 61	2.4
64	4.8
1	4.5
2	4.1
3	4.5
6	4.3
7	3.5
8	9.0

S1 BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q1111	2.0	4.1	1.3
Q1112	1.5	3.5	0.9
Q1113	1.9	4.1	1.3
Q1114	3.5	3.3	4.1
Q1115	3.3	4.1	2.7

## S1 BOARD \* MARK

Ref	25C5A	25C5B	25C5D	25C5E	25C5K	25C5R	29C5A	29C5B	29C5D	29C5E	29C5K	29C5R
C1127	22PF	33PF	22PF	33PF	33PF	22PF	22PF	33PF	22PF	33PF	33PF	22PF
C1129	-	0.033MF	-	0.033MF	0.033MF	-	-	0.033MF	-	0.033MF	0.033MF	-
C1130	-	0.033MF	-	0.033MF	0.033MF	-	-	0.033MF	-	0.033MF	0.033MF	-
C1131	0.47MF	0.47MF	0.47MF	-	-	0.47MF	0.47MF	0.47MF	0.47MF	-	-	0.47MF
D1101	0	BB135	0	BB135	BB135	0	0	BB135	0	BB135	BB135	0
FB1111	6.8UH	4.7UH	6.8UH	4.7UH	4.7UH	6.8UH	6.8UH	4.7UH	6.8UH	4.7UH	4.7UH	6.8UH
FB1113	-	4.7UH	-	-	-	-	-	4.7UH	-	-	-	-
IC1101	TDA9870	TDA9875P	TDA9870	TDA9875P	TDA9875P	TDA9870	TDA9870	TDA9875P	TDA9870	TDA9875P	TDA9875P	TDA9870
IC1102	LM358D	UPC4558G2	LM358D	UPC4558G2	UPC4558G2	LM358D	LM358D	UPC4558G2	LM358D	UPC4558G2	UPC4558G2	LM358D
L1101	-	2.7UH	-	2.7UH	2.7UH	-	-	2.7UH	-	2.7UH	2.7UH	-
L1113	-	5.6UH	-	-	-	-	-	5.6UH	-	-	-	-
L1117	-	10UH	-	-	-	-	-	10UH	-	-	-	-
R1108	2.2K	2.2K	2.2K	-	-	2.2K	2.2K	2.2K	2.2K	-	-	2.2K
R1116	0	39K	0	39K	39K	0	0	39K	0	39K	39K	0
R1117	-	10K	-	10K	10K	-	-	10K	-	10K	10K	-
R1118	-	20K	-	20K	20K	-	-	20K	-	20K	20K	-
R1121	4.7K	10K	4.7K	10K	10K	4.7K	4.7K	10K	4.7K	10K	10K	4.7K
R1122	4.7K	10K	4.7K	10K	10K	4.7K	4.7K	10K	4.7K	10K	10K	4.7K
R1130	10K	-	10K	-	-	10K	10K	-	10K	-	-	10K
R1134	10K	-	10K	-	-	10K	10K	-	10K	-	-	10K
R1164	-	10K	-	10K	10K	-	-	10K	-	10K	10K	-
R1165	0	-	0	-	-	0	0	-	0	-	-	0



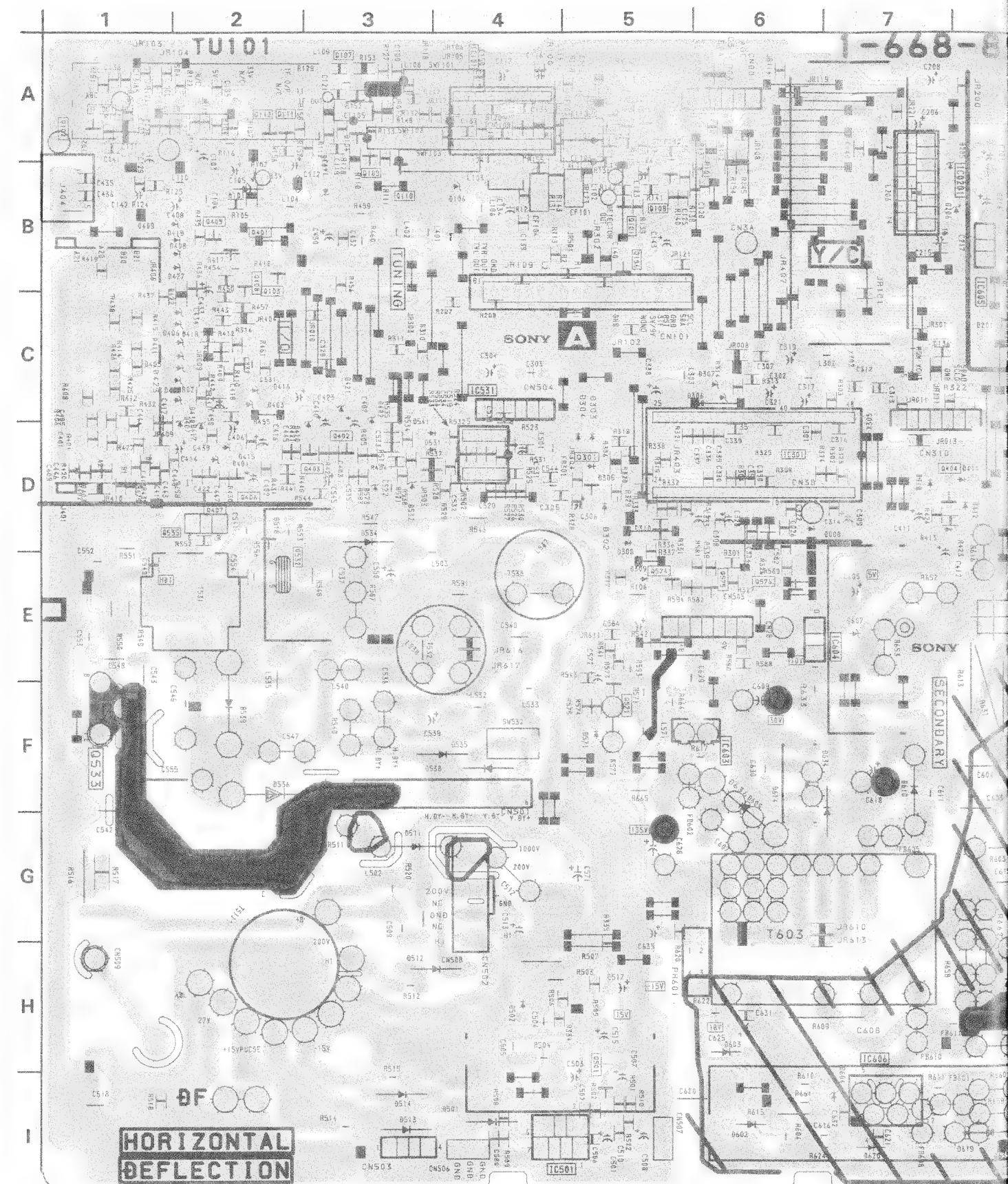
# A BOARD

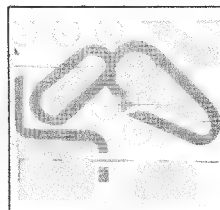
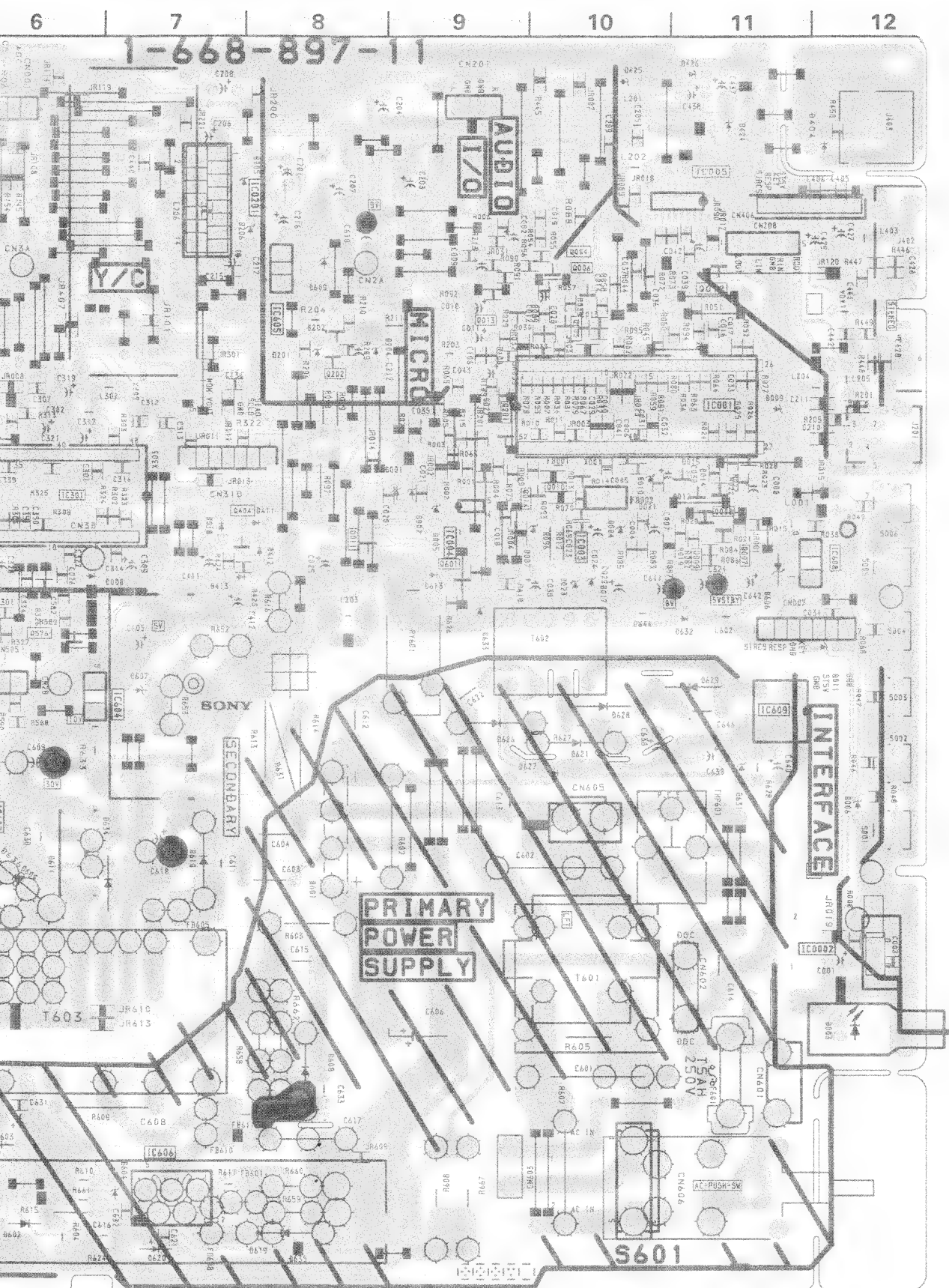
IC		DIODE		D539	F - 2
IC001	C - 11	D001	D - 8	D571	F - 5
IC003	D - 10	D002	D - 8	D601	G - 8
IC004	D - 9	D004	D - 10	D602	I - 6
IC005	B - 11	D007	D - 9	D603	H - 6
IC101	A - 4	D008	D - 7	D605	G - 6
IC201	B - 7	D009	C - 11	D608	H - 8
IC301	D - 6	D010	D - 10	D610	F - 7
IC501	I - 4	D011	E - 12	D613	E - 9
IC531	C - 4	D012	D - 11	D614	G - 6
IC603	F - 6	D014	D - 11	D619	I - 8
IC604	E - 6	D015	D - 11	D621	F - 10
IC605	C - 8	D017	E - 10	D626	F - 9
IC606	I - 7	D018	D - 7	D627	F - 9
IC608	D - 12	D023	E - 10	D628	E - 10
IC609	E - 11	D101	B - 2	D629	E - 11
TRANSISTOR		D104	A - 3	D631	F - 11
Q004	B - 9	D201	C - 8	D632	E - 10
Q005	C - 10	D202	C - 8	D633	E - 9
Q006	B - 9	D204	C - 9		
Q007	D - 10	D205	B - 8		
Q008	D - 11	D206	B - 7		
Q009	D - 11	D306	C - 6		
Q010	D - 10	D307	C - 6		
Q011	D - 8	D308	E - 5		
Q012	B - 11	D309	E - 5		
Q013	B - 9	D405	C - 1		
Q101	B - 5	D406	C - 2		
Q107	A - 3	D407	D - 2		
Q109	B - 2	D409	B - 1		
Q110	B - 2	D415	D - 2		
Q111	A - 2	D417	D - 2		
Q112	A - 2	D422	C - 1		
Q202	C - 8	D423	C - 1		
Q401	B - 2	D427	B - 2		
Q405	B - 2	D501	I - 4		
Q408	B - 2	D502	H - 4		
Q501	I - 5	D511	G - 3		
Q532	E - 2	D512	H - 3		
Q533	F - 1	D513	I - 3		
Q535	D - 1	D514	I - 3		
Q571	F - 5	D534	D - 3		
Q574	E - 5	D535	F - 4		
Q575	E - 6	D536	F - 2		
Q576	E - 6	D538	F - 4		

**A**

POWER SUPPLY,  
DEFLECTION, TUNING, PROCESSOR  
VIDEO SIGNAL PROCESSOR, AV IN/OUT

## A Board





#### NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

#### A BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q004	4.7	0.7	4.9
Q005	0.3	4.8	-
Q006	-	2.0	-
Q007	-	4.9	-
Q008	-	4.9	-
Q009	-	4.9	-
Q010	0.6	-	-
Q011	0.5	-	-
Q012	-	4.8	-
Q101	2.0	-	2.6
Q109	-	4.7	-
Q110	4.3	-	-
Q111	2.3	2.9	2.9
Q112	2.9	-	-
Q202	0.6	-	-
Q401	8.0	3.4	8.6
Q405	4.4	8.8	3.7
Q408	2.6	8.0	2.0
Q532	7.3	3.1	-
Q533	-0.2	-152.0	-
Q535	-0.7	92.0	-
Q571	134.2	-	134.4
Q574	-	2.0	-
Q576	3.4	6.7	2.8
Q601	4.0	3.6	4.8

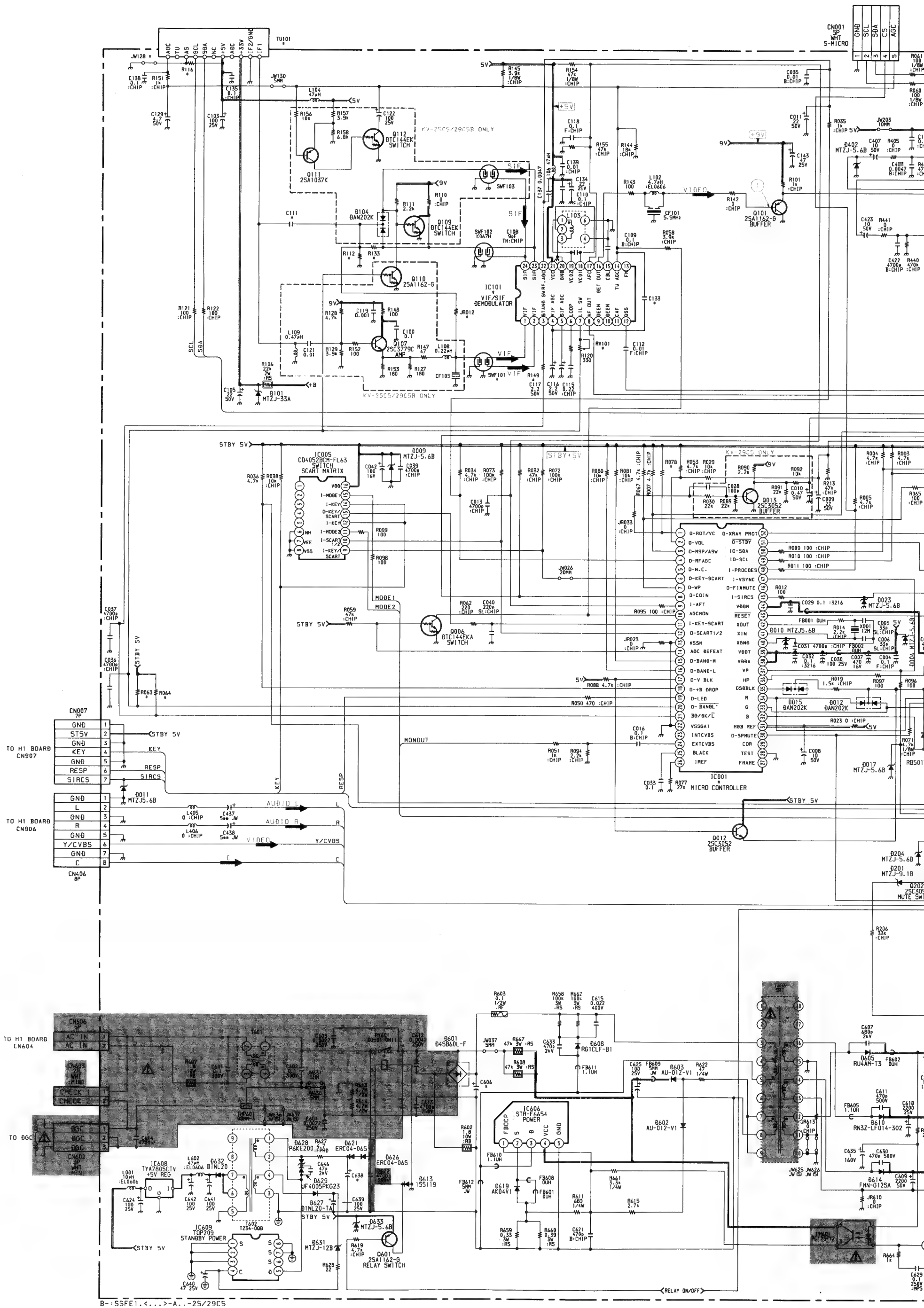
#### A BOARD IC VOLTAGE TABLE

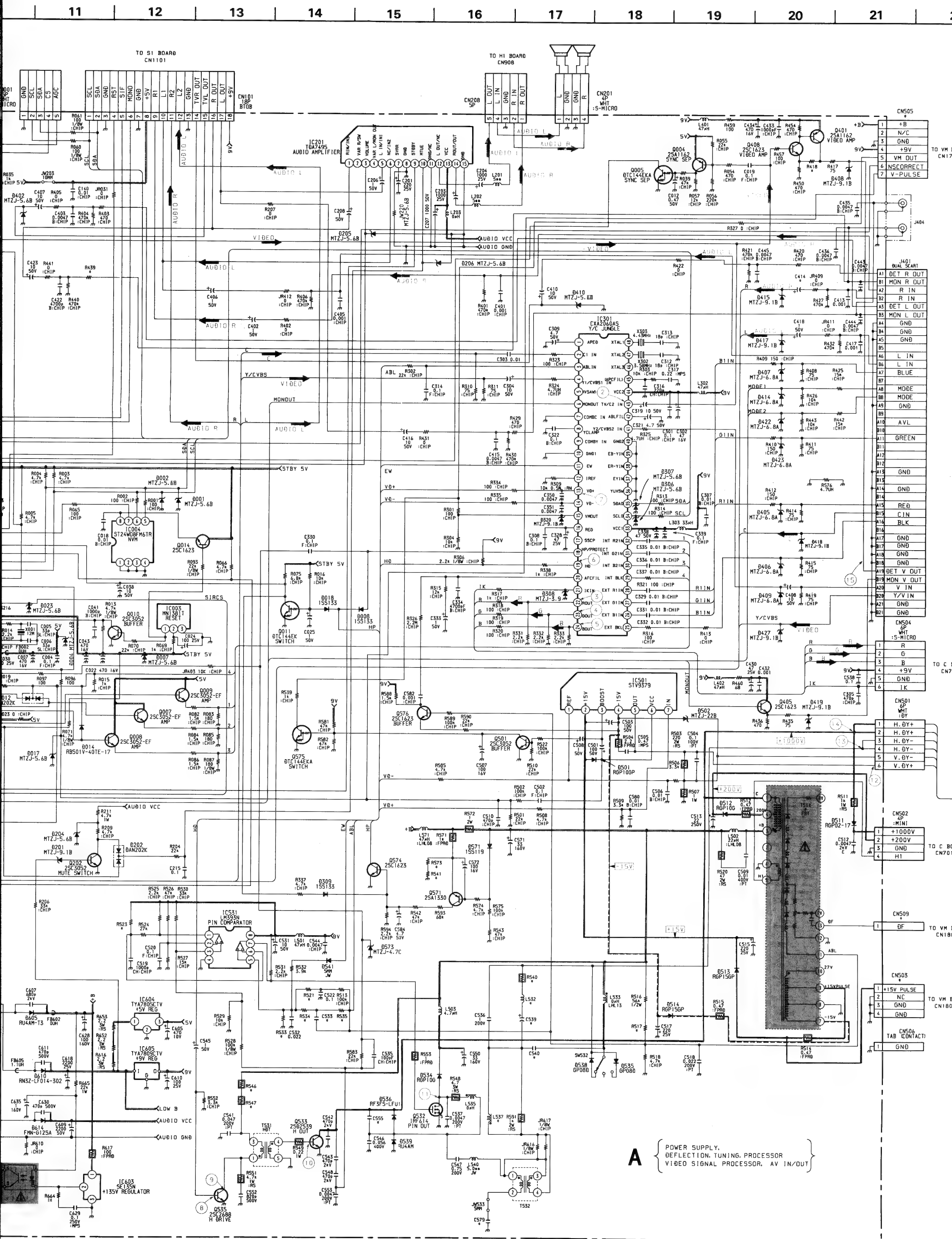
IC Voltage Table								
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC001	4	0.8	IC101	1 - 2	3.2	IC301	34 - 35	3.3
	6	3.2		3	4.8		41	5.0
	7 - 8	4.8		4	3.0		42	8.6
	9	0.3		5	2.8		43	5.0
	10	2.0		6	2.7		44	8.8
	11	1.5		7	3.9		45	5.2
	12	4.7		8	2.2		48	1.5
	19	3.6		12	2.0	IC201	1	15.3
	20	4.3		15	1.5		5	15.3
	21	4.8		17	0.3		7	15.3
	24	2.5		18 - 19	2.6		10	4.5
	25	2.1		21	4.7		12	15.3
	26	2.4		22	0.9		13	31.2
	30	4.8		23 - 24	3.2		14	15.3
	31	5.0	IC301	1	3.3	IC501	1	1.4
	36	0.2		2	5.0		2	14.0
	37	0.1		3	4.3		3	-13.0
	38 - 39	5.0		4	5.0		4	-14.0
	41 - 42	2.2		6	4.4		5	0.2
	44	4.8		8	4.5		6	14.5
	45	2.8		11	3.9		7	1.4
	47	0.1		12	2.4	IC531	1	1.6
	48	2.4		13	3.5		2	1.7
	49	3.3		14	3.4		3	1.9
	50	3.1		15	5.6		5	2.8
	51	0.1		16	7.6		6	2.0
	5 - 6	4.8		18	1.3		7	7.3
IC004	7	3.3		19	2.4		8	8.8
	8	3.2		20	3.8	IC606	1 - 2	-60.0
	9	3.2		21	1.6		4	-51.3
IC005	10	4.7		22 - 24	1.5	IC609	4	-58.0
	12	4.7		26 - 28	4.5			
	13	1.5		30	4.5			
	14	4.7		31 - 32	4.4			
	16	4.7		33	8.1			



1 2 3 4 5 6 7 8 9 10 11

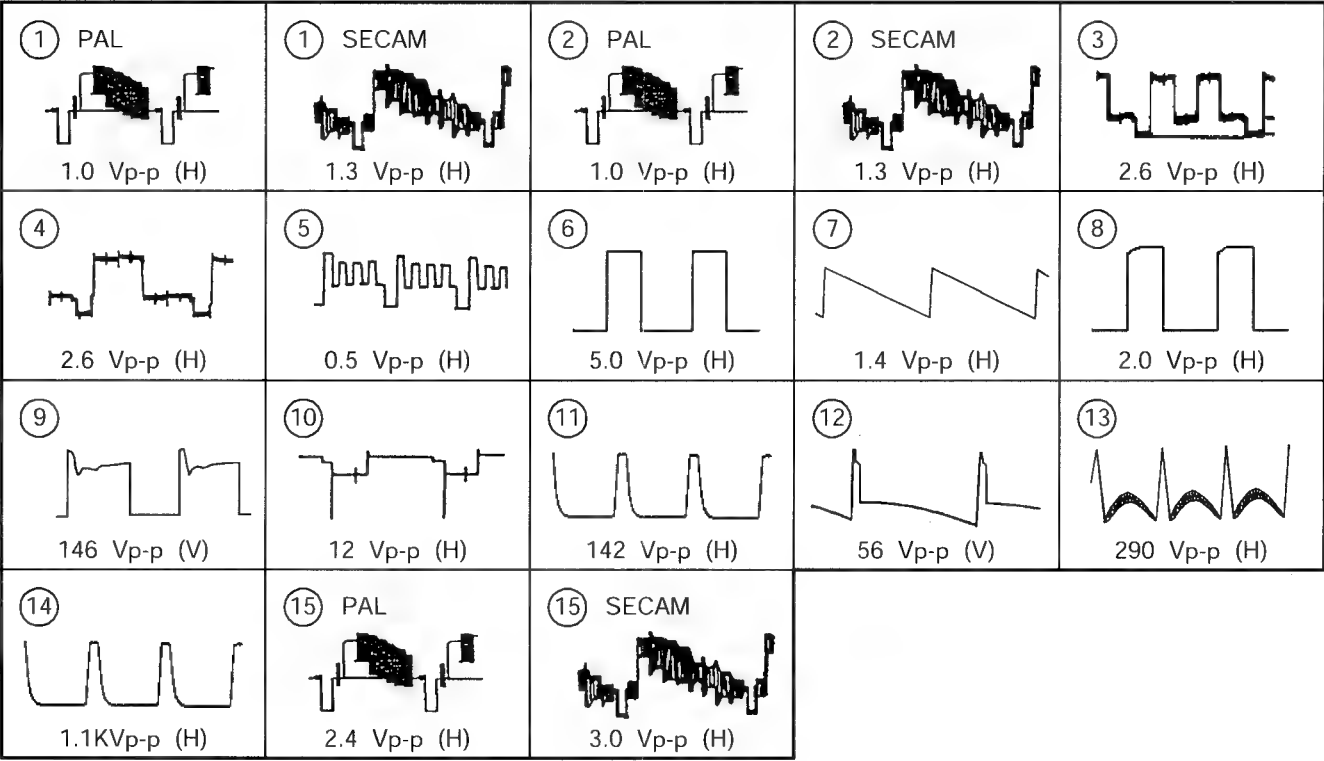
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O





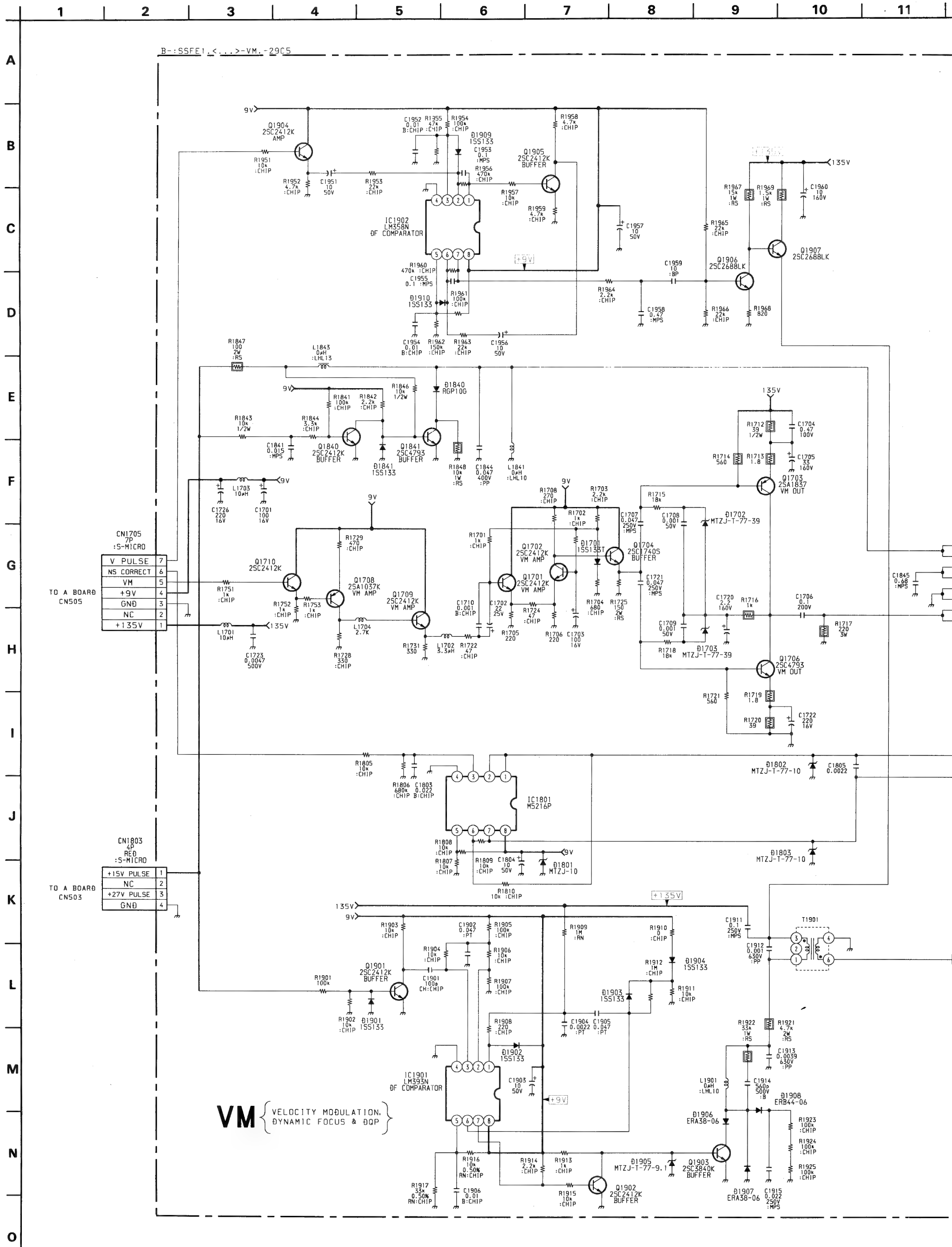
A POWER SUPPLY, DEFLECTION, TUNING, PROCESSOR VIDEO SIGNAL PROCESSOR, AV IN/OUT

WAVEFORMS A BOARD

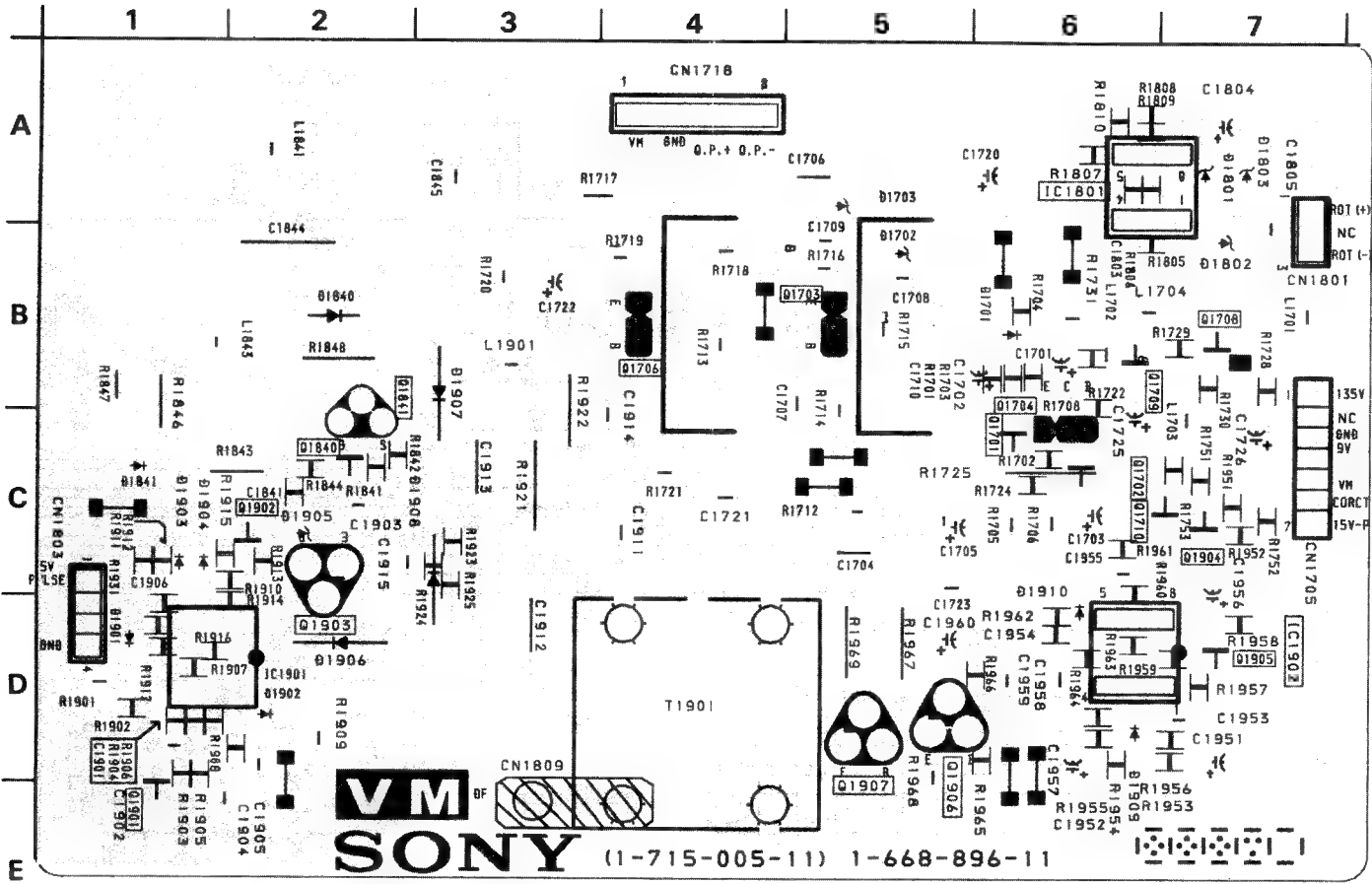


A BOARD \* MARK

Ref	25C5A	25C5B	25C5D	25C5E	25C5K	25C5R	29C5A	29C5B	29C5D	29C5E	29C5K	29C5R
C111	0	0.01MF	0	0	0	0	0	0.01MF	0	0	0	0
C133	-	1MF	-	-	-	-	-	1MF	-	-	-	-
C414	0.001MF	0.001MF	0.001MF	0.001MF	0.001MF	0.001MF	1MF	1MF	1MF	1MF	1MF	1MF
C533	-	0.0047MF	-	-	-	-	0.0047MF	0.0047MF	0.0047MF	0.0047MF	0.0047MF	0.0047MF
C539	10MF	10MF	10MF	10MF	10MF	10MF	1MF	1MF	1MF	1MF	1MF	1MF
C540	0.068MF	0.068MF	0.068MF	0.068MF	0.068MF	0.068MF	0.033MF	0.033MF	0.033MF	0.033MF	0.033MF	0.033MF
C555	18000P	18000P	18000P	1800P	18000P	18000P	1500P	1500P	1500P	1500P	1500P	1500P
C579	LEAD JUMPER (5.0MM)	LEAD JUMPER (5.0MM)	LEAD JUMPER (5.0MM)	LEAD JUMPER (5.0MM)	LEAD JUMPER (5.0MM)	LEAD JUMPER (5.0MM)	-	-	-	-	-	-
C606	330MF 400V	330MF 400V	330MF 400V	330MF 400V	330MF 400V	330MF 450V	330MF 400V	330MF 400V	330MF 400V	330MF 400V	330MF 400V	330MF 450V
C638	10MF 400V	10MF 400V	10MF 400V	10MF 400V	10MF 400V	10MF 450V	10MF 400V	10MF 400V	10MF 400V	10MF 400V	10MF 400V	10MF 450V
CN503	-	-	-	-	-	-	4P	4P	4P	4P	4P	4P
CN505	-	-	-	-	-	-	7P	7P	7P	7P	7P	7P
CN509	-	-	-	-	-	-	1P	1P	1P	1P	1P	1P
IC001	SAA5497PS/ M1A/040	SAA5497PS/ M1A/038	SAA5497PS/ M1A/040	SAA5497PS/ M1A/038	SAA5497PS/ M1A/038	SAA5497PS/ M1A/039	SAA5497PS/ M1A/040	SAA5497PS/ M1A/038	SAA5497PS/ M1A/040	SAA5497PS/ M1A/038	SAA5497PS/ M1A/038	SAA5497PS/ M1A/039
IC101	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1	TDA9817/V1
JR012	0	-	0	0	0	0	0	-	0	0	0	0
JW128	-	LEAD JUMPER (5.0MM)	-	-	-	LEAD JUMPER (5.0MM)	-	LEAD JUMPER (5.0MM)	-	-	-	LEAD JUMPER (5.0MM)
JW410	-	LEAD JUMPER (5.0MM)	-	-	-	LEAD JUMPER (5.0MM)	-	LEAD JUMPER (5.0MM)	-	-	-	LEAD JUMPER (5.0MM)
L532	2.2MMH	2.2MMH	2.2MMH	2.2MMH	2.2MMH	2.2MMH	3.3MMH	3.3MMH	3.3MMH	3.3MMH	3.3MMH	3.3MMH
L537	1-416-214-11	1-416-214-11	1-416-214-11	1-416-214-11	1-416-214-11	1-416-214-11	1-409-855-11	1-409-855-11	1-409-855-11	1-409-855-11	1-409-855-11	1-409-855-11
R063	-	4.7K	-	-	-	-	-	4.7K	-	-	-	-
R064	-	4.7K	-	-	-	-	-	4.7K	-	-	-	-
R078	-	-	-	-	-	-	4.7K	4.7K	4.7K	4.7K	4.7K	4.7K
R112	-	2.2K	-	-	-	-	-	2.2K	-	-	-	-
R116	-	-	-	47K	47K	-	-	-	-	47K	47K	-
R133	0	-	0	0	0	0	0	-	0	0	0	0
R149	-	1K	-	-	-	-	-	1K	-	-	-	-
R418	470 ½W	470 ¼W	470 ½W	470 ½W	470 ¼W	470 ½W	470 ½W	470 ¼W	470 ½W	470 ½W	470 ¼W	470 ½W
R439	1K	1K	1K	1K	1K	1K	470	470	470	470	470	470
R517	27K	27K	27K	27K	27K	27K	10K	10K	10K	10K	10K	10K
R521	680K	680K	680K	680K	680K	680K	1M	1M	1M	1M	1M	1M
R523	680K	680K	680K	680K	680K	680K	1M	1M	1M	1M	1M	1M
R533	22K	22K	22K	22K	22K	22K	10K	10K	10K	10K	10K	10K
R534	270K	270K	270K	270K	270K	270K	470K	470K	470K	470K	470K	470K
R535	330K	330K	330K	330K	330K	330K	150K	150K	150K	150K	150K	150K
R540	56	56	56	56	56	56	47	47	47	47	47	47
R541	82K	82K	82K	82K	82K	82K	100K	100K	100K	100K	100K	100K
R546	47	47	47	47	47	47	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K
R547	LEAD JUMPER (7.5M)	LEAD JUMPER (7.5M)	LEAD JUMPER (7.5M)	LEAD JUMPER (7.5M)	LEAD JUMPER (7.5M)	LEAD JUMPER (7.5M)	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K
R573	150K	150K	150K	150K	150K	150K	100K	100K	100K	100K	100K	100K
RV101	-	22K	-	-	-	-	-	22K	-	-	-	-
SWF101	1-767-874-11	1-579-273-11	1-767-874-11	1-767-874-11	1-767-874-11	1-767-874-11	1-767-874-11	1-579-273-11	1-767-874-11	1-767-874-11	1-767-874-11	1-767-874-11
T511	NX-1680	NX-1680	NX-1680	NX-1680	NX-1680	NX-1680	NX-1681	NX-1681	NX-1681	NX-1681	NX-1681	NX-1681
TU101	BTP-AC402	TELE9-001A	BTP-AC402	BTP-AC411	BTP-AC411	BTP-AC402	BTP-AC402	TELE9-001A	BTP-AC402	BTP-AC411	BTP-AC411	BTP-AC402



VM Board

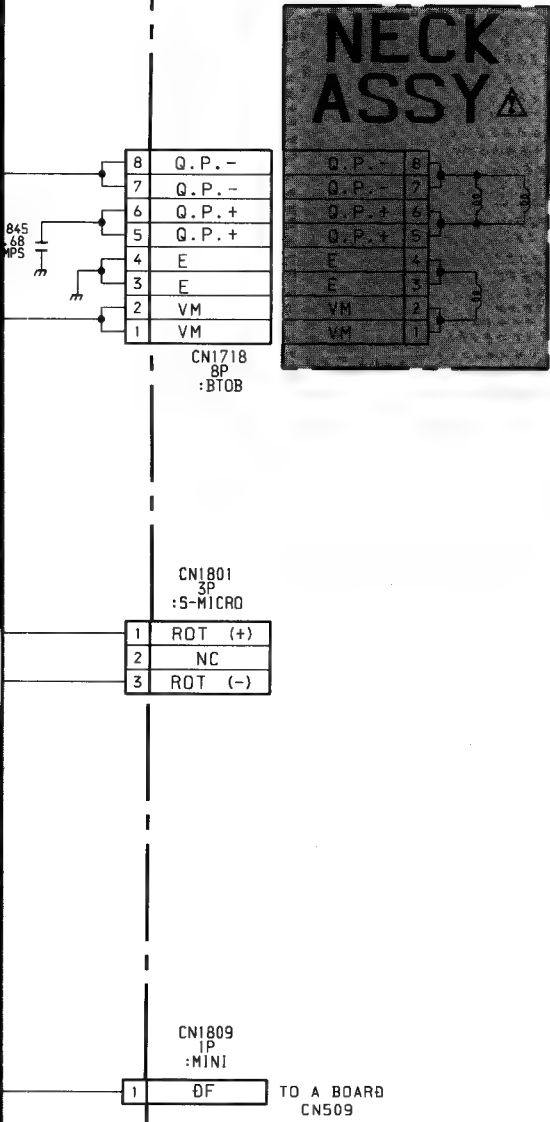


11

12

13

14



VM BOARD IC VOLTAGE TABLE

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC1801	1 - 3	5.0
	5 - 6	4.3
	7	3.7
	8	8.0
	9	4.8
IC1901	1	1.7
	2	4.0
	3	4.5
	5	6.7
	6	6.8
	7	3.6
	8	8.0
	9	4.8
IC1902	1 - 3	2.8
	5 - 6	5.2
	7	5.0
	8	8.0

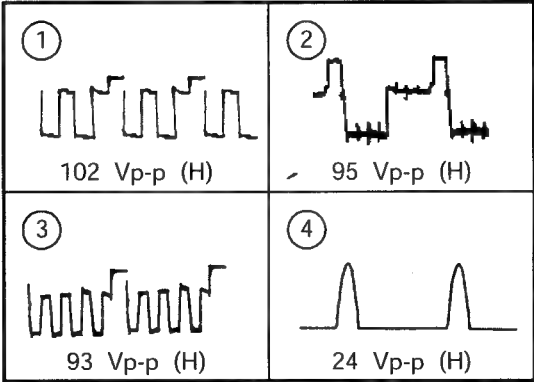
C BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q702	1.5	8.3	1.1
Q703	8.8	169.8	8.3
Q704	169.5	1.9	209.5
Q705	1.5	8.3	1.1
Q706	8.8	170.7	8.3
Q707	170.5	1.9	215.7
Q708	1.5	8.3	1.0
Q709	8.9	171.3	8.3
Q710	171.2	1.9	206.3

VM BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q1701	2.4	8.7	1.8
Q1702	2.4	6.5	1.8
Q1703	133.4	52.0	133.8
Q1704	8.7	8.5	5.8
Q1706	0.8	52.0	0.5
Q1708	5.0	2.1	5.6
Q1709	5.4	8.0	4.7
Q1710	5.6	8.0	5.0
Q1840	-0.3	4.7	-
Q1901	0.4	1.3	-
Q1902	0.4	0.3	-
Q1903	0.3	62.0	-
Q1904	-	8.0	0.1
Q1905	2.7	6.5	2.2
Q1906	4.0	68.8	3.4
Q1907	68.7	122.2	68.2
	Gate	Drain	Source
Q1841	4.7	18.0	-

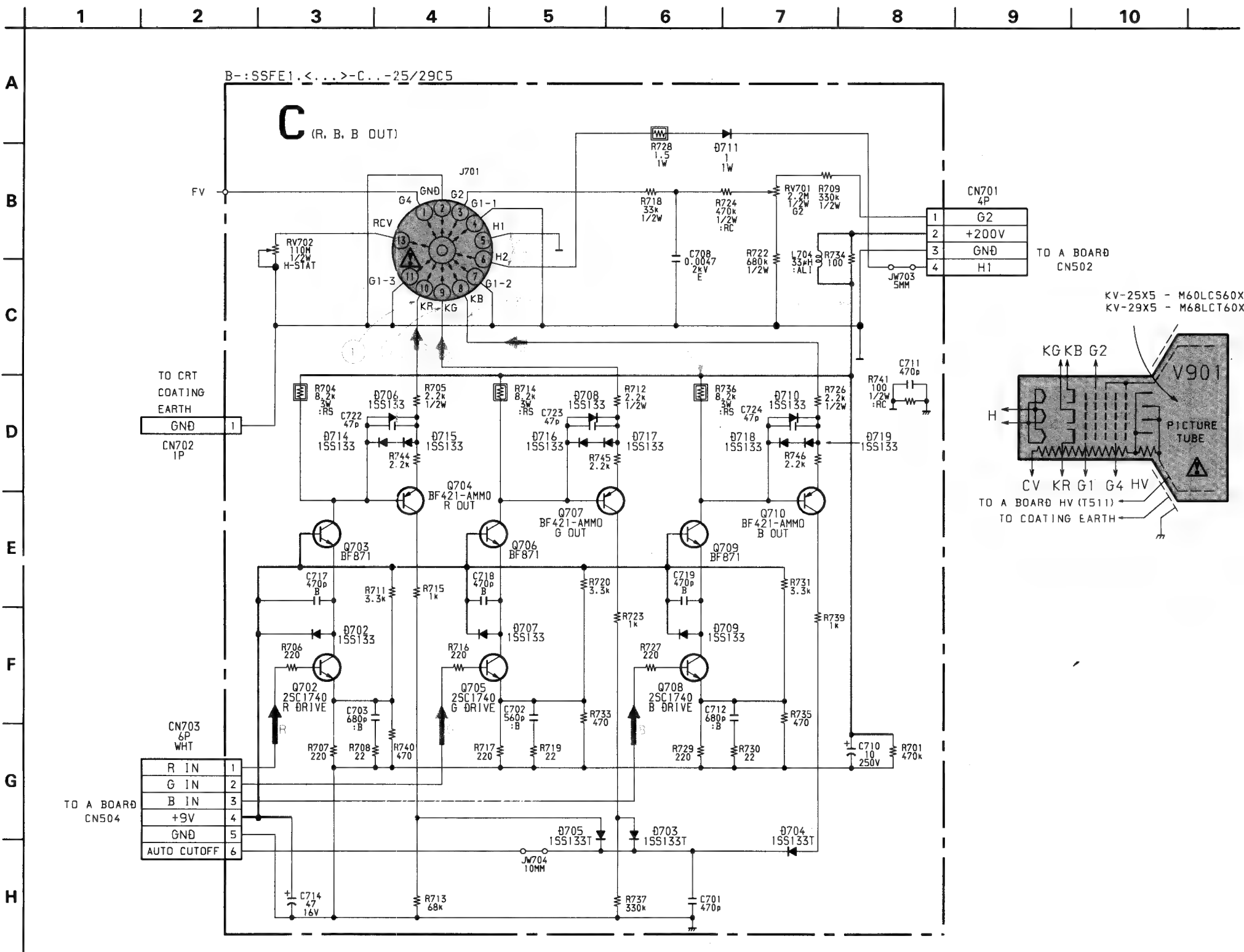
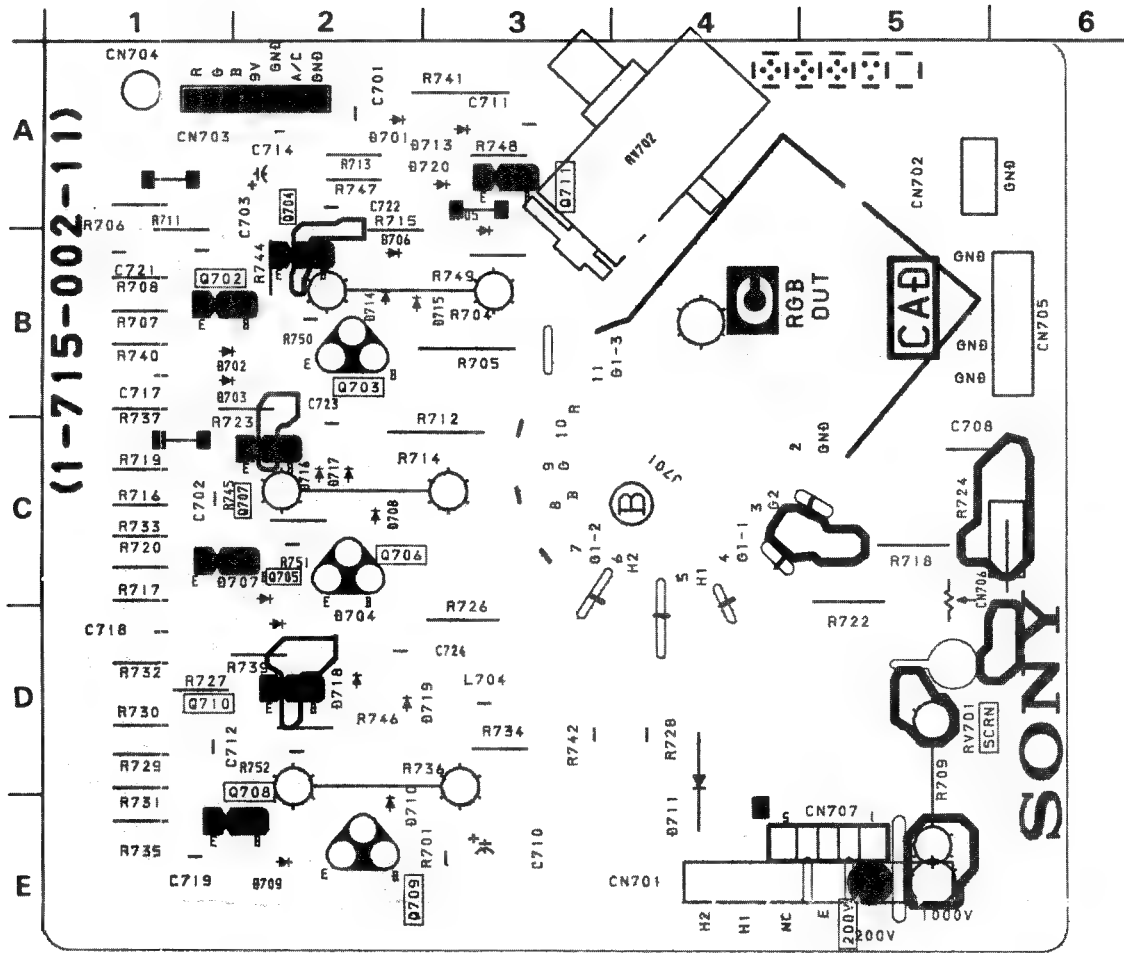
WAVEFORMS C BOARD





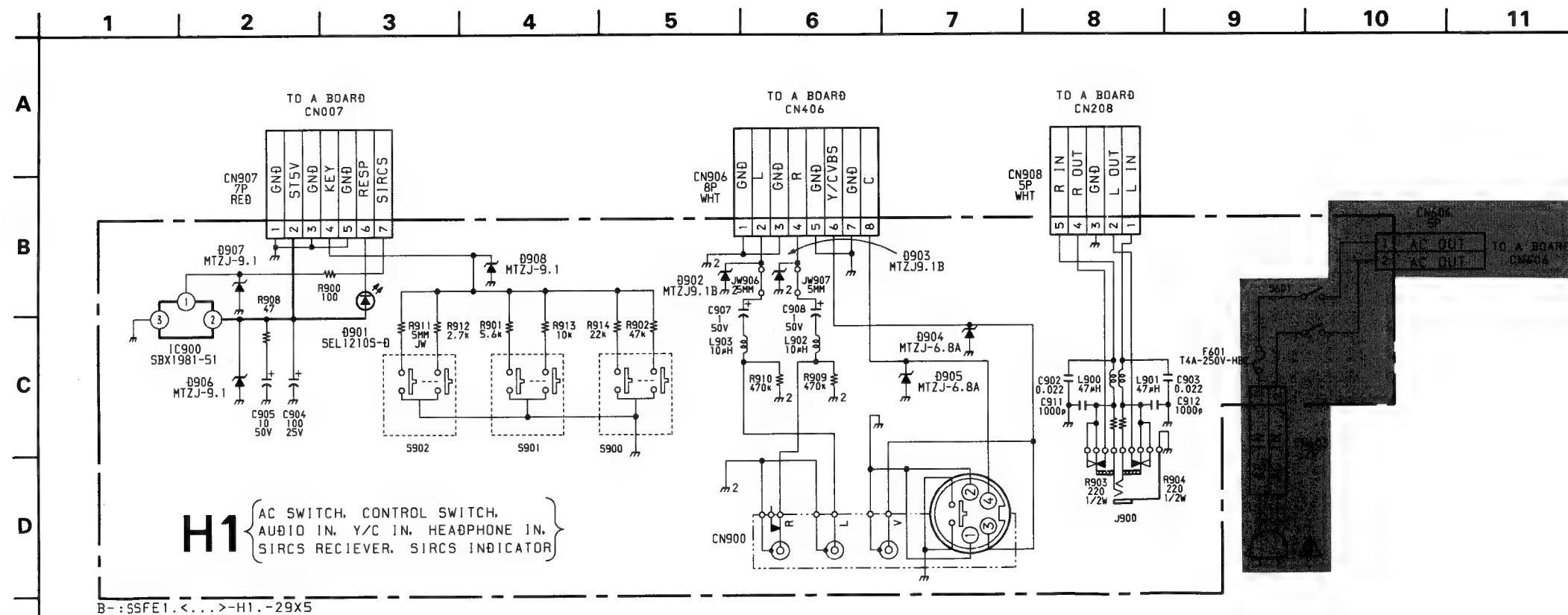
# C [ RGB OUT ]

## C Board

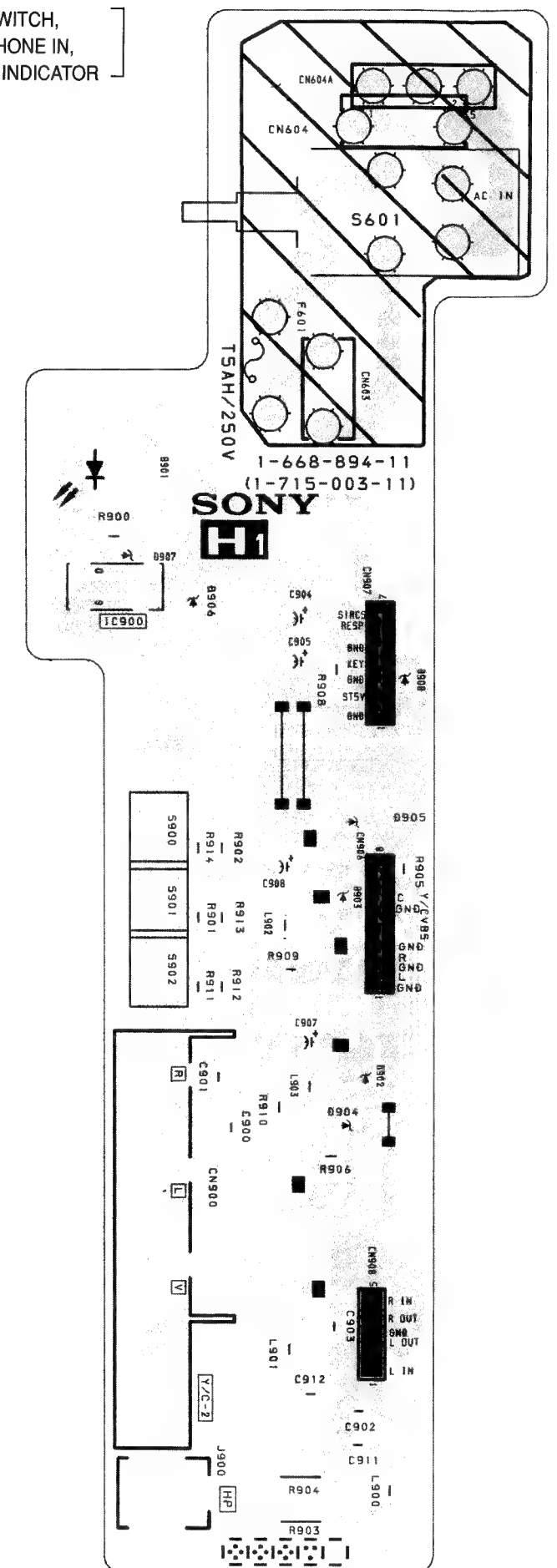


**H1**

AC SWITCH, CONTROL SWITCH,  
AUDIO IN, Y/C IN, HEADPHONE IN,  
SIRCS RECIEVER, SIRCS INDICATOR

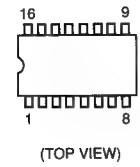


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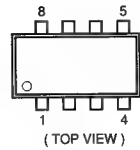


5-4 SEMICONDUCTORS

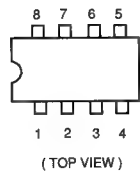
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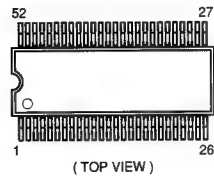
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NJM2903D



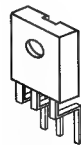
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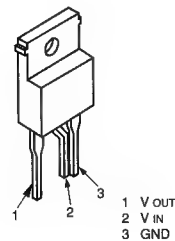
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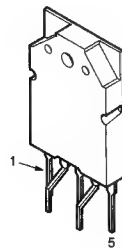
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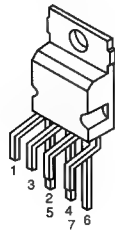
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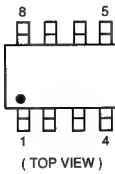
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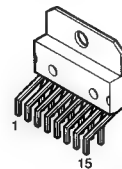
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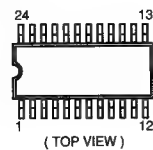
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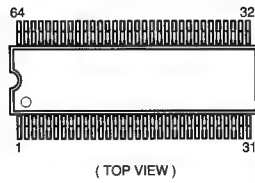
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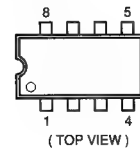
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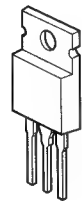
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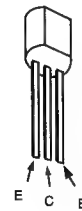
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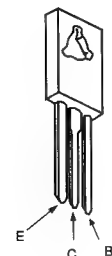
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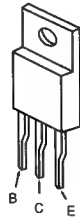
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2SC688-LK



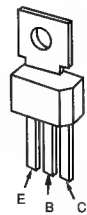
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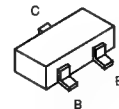
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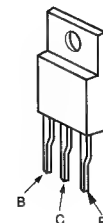
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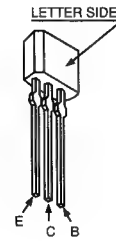
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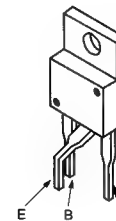
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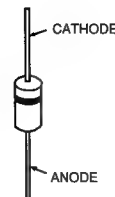
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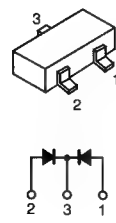
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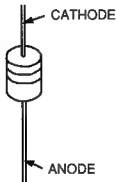
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EL1Z  
ERD28-06S  
ERD28-08S  
ERC06-15  
FMN-G12S  
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RU-4AM-T3  
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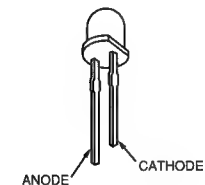
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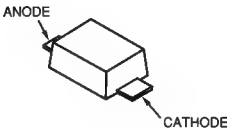
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MTZJ-T-77-33A  
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MTZJ-7.5B  
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RD5.6ESB2  
RD6.8ES-B2  
RD7.5ESB2  
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1SS119-25TD  
1SS133T-77



SEL12108-D



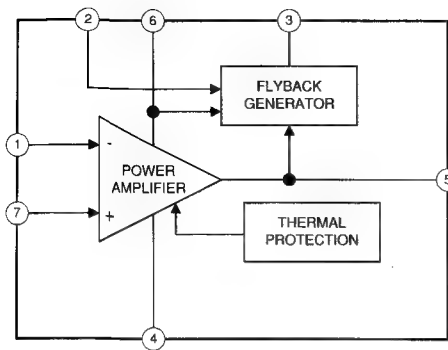
UF4005PK623



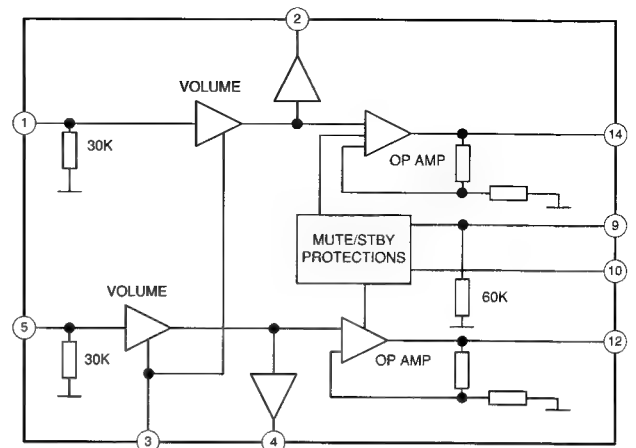


## 5-5. IC BLOCK DIAGRAMS

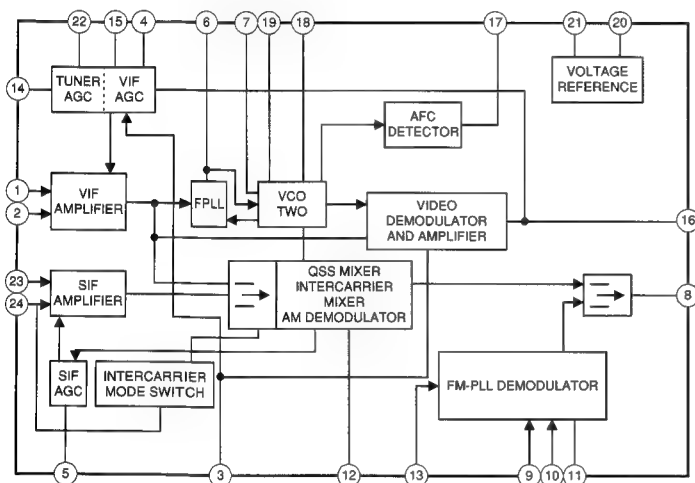
A BOARD IC501 STV 9379



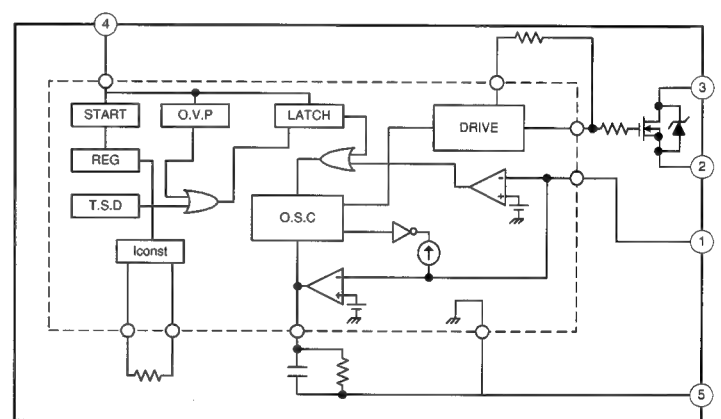
A BOARD IC201 TDA7495



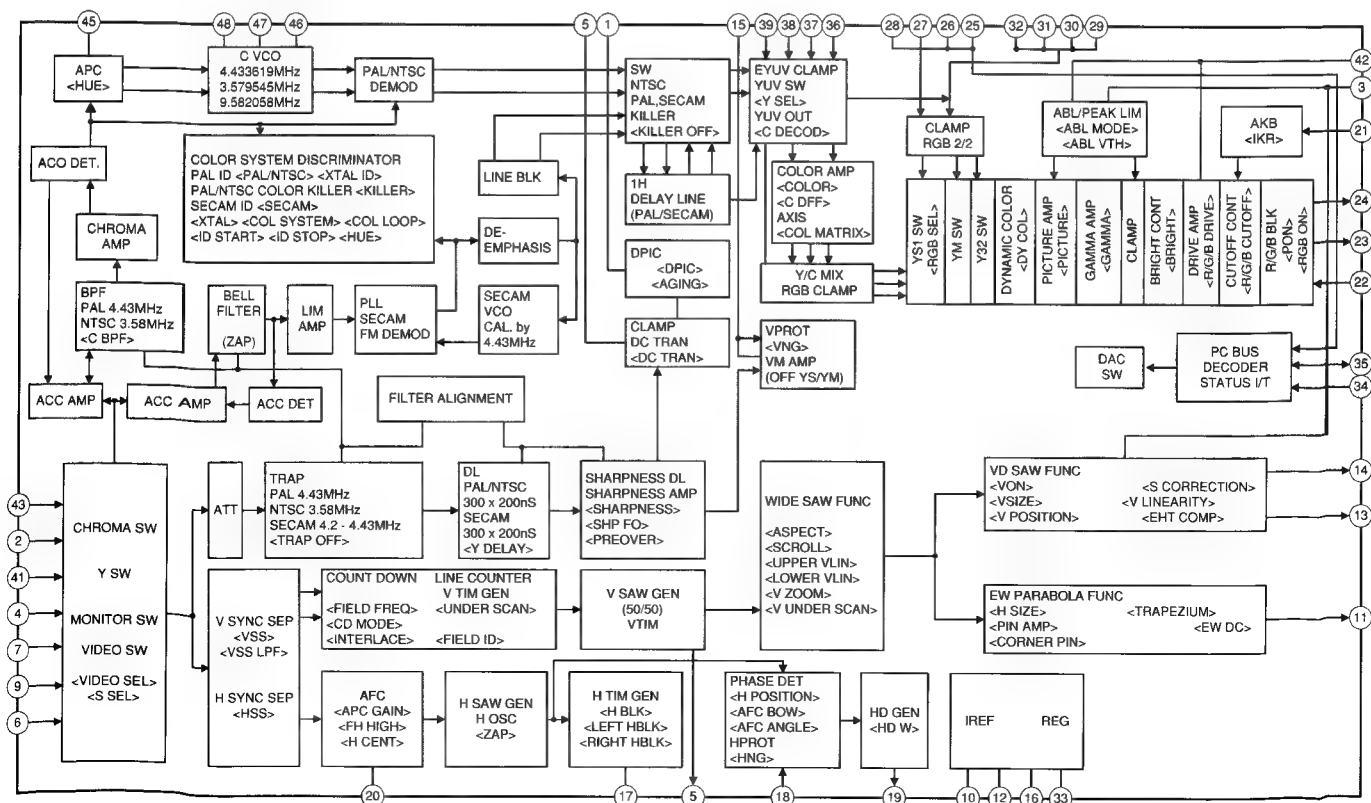
A BOARD IC101 TDA9817/V1



A BOARD IC606 STR-F6654



A BOARD IC301 CXA2060AS



## SECTION 6 EXPLODED VIEWS

### NOTE :

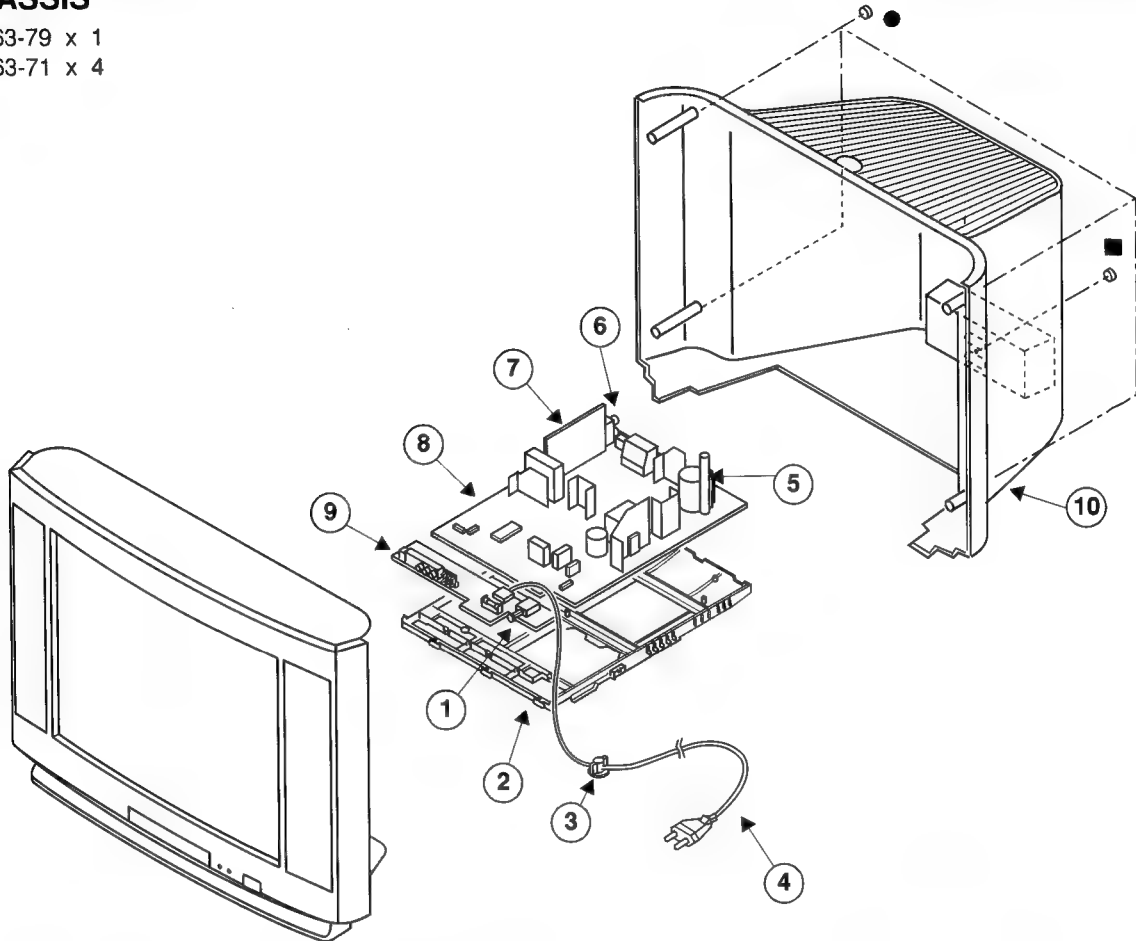
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

**Note :** Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

**Note :** The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

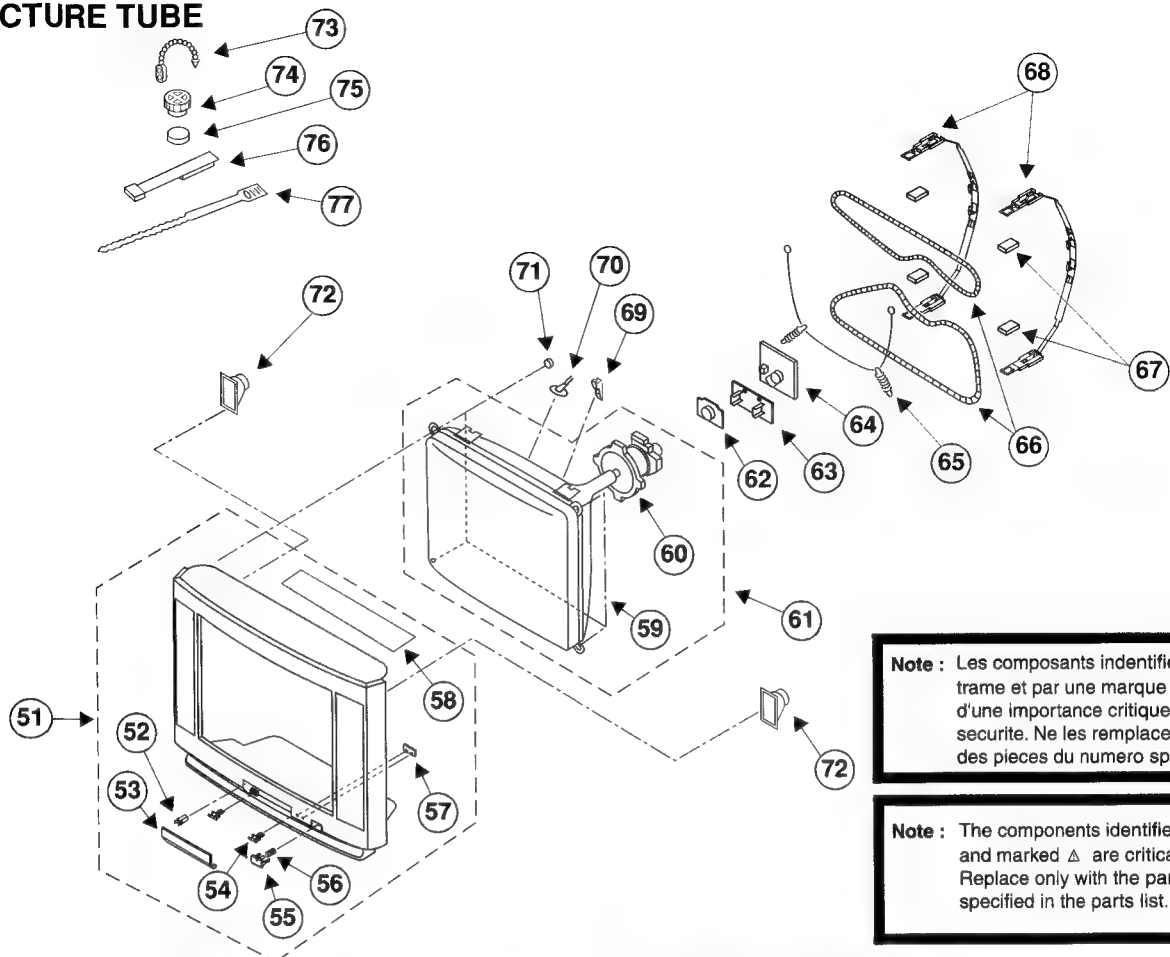
### 6-1. CHASSIS

- 7-685-663-79 x 1
- 7-685-663-71 x 4



REF. NO.	PART. NO.	DESCRIPTION	REMARK	REF. NO.	PART. NO.	DESCRIPTION	REMARK
1	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)		8	*A-1632-750-A	A BOARD, COMPLETE (KV-25C5A)	
2	*4-202-998-01	BRACKET, MAIN			*A-1632-748-A	A BOARD, COMPLETE (KV-25C5B)	
3	Δ *4-202-531-01	AC CORD LOCK (SC)			*A-1632-746-A	A BOARD, COMPLETE (KV-25C5D)	
4	Δ 1-765-286-11	CORD, POWER			*A-1632-747-A	A BOARD, COMPLETE (KV-25C5E)	
5	Δ 1-453-264-11	TRANSFORMER ASSY, FLYBACK (NK-1680/U2B4)			*A-1632-752-A	A BOARD, COMPLETE (KV-25C5K)	
		(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)			*A-1632-753-A	A BOARD, COMPLETE (KV-25C5R)	
	1-453-265-11	TRANSFORMER ASSY, FLYBACK (NK-1661/U2B4)			*A-1632-721-A	A BOARD, COMPLETE (KV-25C5A)	
		(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)			*A-1632-716-A	A BOARD, COMPLETE (KV-25C5B)	
6	8-598-361-01	TUNER (BTP-AC402) (KV-25C5A/25C5D/25C5R/29C5A/29C5D/29C5R)			*A-1632-715-A	A BOARD, COMPLETE (KV-25C5D)	
	1-693-418-11	TUNER (TELE9-001A) (KV-25C5B/25C5D/29C5B/29C5D)			*A-1632-720-A	A BOARD, COMPLETE (KV-25C5E)	
	8-598-432-00	TUNER (BTP-AC411) (KV-25C5E/25C5K/29C5E/29C5K)			*A-1632-759-A	A BOARD, COMPLETE (KV-25C5K)	
7	*A-1652-053-A	S1 BOARD, COMPLETE (KV-25C5A/25C5D/25C5R/29C5A/29C5D/29C5R)		9	*A-1646-161-A	H1 BOARD, COMPLETE	
	*A-1652-056-A	S1 BOARD, COMPLETE (KV-25C5B/29C5B)		10	4-202-986-11	COVER REAR (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	
	*A-1652-052-A	S1 BOARD, COMPLETE (KV-25C5E/25C5K/29C5E/29C5K)			4-202-993-11	COVER REAR (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	

## 6-2. PICTURE TUBE



REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
51	X-4200-374-1	BEZNET ASSY (BLACK) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	52-58	61	Δ 8-733-254-76	ITC (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	59-60
	X-4200-382-2	BEZNET ASSY (BLACK) (KV-29C5A)		62	Δ 8-453-005-21	NECK ASSY (NA297-M2) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
	X-4200-382-1	BEZNET ASSY (BLACK) (KV-29C5B/29C5D/29C5E/29C5K/29C5R)		63	*A-1644-088-A	VM BOARD, COMPLETE (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
	X-4200-382-4	BEZNET ASSY (GREY) 29" only		64	*A-1638-111-A	C BOARD, COMPLETE	
52	4-047-464-01	CATCHER PUSHER		65	4-369-318-21	SPRING, TENSION (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	
53	4-204-059-01	DOOR (PAINTED BLACK) (KV-25C5A/25C5B/ 25C5D/25C5E/25C5K/25C5R)			4-200-433-11	SPRING, EXTENSION (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
	4-204-103-11	DOOR (PAINTED BLACK) (KV-29C5A)		66	Δ 1-406-807-11	COIL, DEMAGNETIZATION	
	4-204-103-01	DOOR (PAINTED BLACK) (KV-29C5B/29C5D/ 29C5E/29C5K/29C5R)		67	4-203-390-11	CUSHION, DGC (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
	4-204-103-31	DOOR (PRINTED) (GREY)		68	4-202-745-01	HOLDER, DGC (25") (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	
54	3-703-035-11	SHAFT, LID			4-202-749-01	HOLDER, DGC (29") (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
55	4-203-344-01	BUTTON POWER (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		69	3-704-495-01	SPACER, DY	
	4-203-339-01	BUTTON POWER (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		70	Δ 1-251-317-31	CAP ASSY, HIGH VOLTAGE	
56	4-202-964-01	SPRING		71	4-203-043-01	SCREW (PT)	
57	4-204-105-01	GUIDE, LIGHT		72	1-505-924-11	SPEAKER, LOUD (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	
58	4-203-553-01	SHEET BLOTING (KV-25C5A/25C5B/25C5D/ 25C5E/25C5K/25C5R)			1-505-605-11	SPEAKER, LOUD (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
59	Δ 8-733-254-05	PICTURE TUBE (SD-257) (M60LCS60X) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		73	4-308-870-00	CLIP, LEAD WIRE	
	Δ 8-733-856-05	PICTURE TUBE (SD-269) (M68LCT60X) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		74	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
	Δ 8-451-404-23	DEFLECTION YOKE (Y25GXABA) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		75	1-452-032-00	MAGNET, DISK; 10MM Ø	
60	Δ 8-451-467-12	DEFLECTION YOKE (Y29GXA2B) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		76	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
				77	3-701-007-00	BAND, BINDING	

## SECTION 7 ELECTRICAL PARTS LIST

When indicating parts by reference number,  
please include the board name.

CAPACITORS                      COILS  
MF : mF, PF : mmF            MMH : mH , uH

- Items marked “ \* ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- RESISTORS
- All resistors are in ohms.
- F : nonflammable.

**Note :** Les composants indentifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

**Note :** The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

**A**

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
	*A-1632-750-A	A BOARD, COMPLETE (KV-25C5A) *****		C028	1-163-117-00	CERAMIC CHIP 100PF 5% 50V (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
	*A-1632-748-A	A BOARD, COMPLETE (KV-25C5B) *****		C029	1-163-077-00	CERAMIC CHIP 0.1MF 10% 25V	
	*A-1632-746-A	A BOARD, COMPLETE (KV-25C5D) *****		C030	1-104-665-11	ELECT 100MF 20% 25V	
	*A-1632-747-A	A BOARD, COMPLETE (KV-25C5E) *****		C031	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
	*A-1632-752-A	A BOARD, COMPLETE (KV-25C5K) *****		C032	1-163-077-00	CERAMIC CHIP 0.1MF 10% 25V	
	*A-1632-753-A	A BOARD, COMPLETE (KV-25C5R) *****		C033	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
	*A-1632-721-A	A BOARD, COMPLETE (KV-29C5A) *****		C035	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
	*A-1632-716-A	A BOARD, COMPLETE (KV-29C5B) *****		C036	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
	*A-1632-715-A	A BOARD, COMPLETE (KV-29C5D) *****		C037	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
	*A-1632-720-A	A BOARD, COMPLETE (KV-29C5E) *****		C038	1-126-964-11	ELECT 10MF 20% 50V	
	*A-1632-759-A	A BOARD, COMPLETE (KV-29C5K) *****		C039	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
	*A-1632-717-A	A BOARD, COMPLETE (KV-29C5R) *****		C040	1-163-189-00	CERAMIC CHIP 220PF 5% 50V	
	4-382-854-01	SCREW (M3X8), P, SW (+)		C041	1-163-205-00	CERAMIC CHIP 0.001MF 10% 50V	
	4-382-854-11	SCREW (M3X10), P, SW (+)		C042	1-126-933-11	ELECT 100MF 20% 16V	
	< CAPACITOR >			C043	1-126-935-11	ELECT 470MF 20% 16V	
C004	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C100	1-163-038-00	CERAMIC CHIP 0.1MF 25V (KV-25C5B/29C5B)	
C005	1-163-105-00	CERAMIC CHIP 33PF 5%	50V	C103	1-104-665-11	ELECT 100MF 20% 25V	
C006	1-163-105-00	CERAMIC CHIP 33PF 5%	50V	C105	1-126-965-11	ELECT 22MF 20% 50V	
C007	1-126-935-11	ELECT 470MF 20%	16V	C108	1-163-465-11	CERAMIC CHIP 9PF 0.25PF 50V	
C008	1-126-964-11	ELECT 10MF 20%	50V	C109	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C009	1-126-965-11	ELECT 22MF 20%	50V	C110	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C010	1-126-959-11	ELECT 0.47MF 20%	50V	C111	1-216-296-00	SHORT 0 50V (KV-25C5A/25C5D/25C5E/25C5K/25C5R/ 29C5A/29C5D/29C5E/29C5K/29C5R)	
C011	1-126-965-11	ELECT 22MF 20%	50V		1-163-059-00	CERAMIC CHIP 0.01MF 50V (KV-25C5B/29C5B)	
C012	1-126-959-11	ELECT 0.47MF 20%	50V	C112	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C013	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V	C115	1-164-489-11	CERAMIC CHIP 0.22MF 10% 16V	
C016	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C116	1-126-961-11	ELECT 2.2MF 20% 50V	
C018	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V	C117	1-126-961-11	ELECT 2.2MF 20% 50V	
C019	1-163-038-00	CERAMIC CHIP 0.1MF 25V		C118	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C022	1-126-935-11	ELECT 470MF 20%	16V	C119	1-163-141-91	CERAMIC CHIP 0.001MF 5% 50V (KV-25C5B/29C5B)	
C024	1-104-665-11	ELECT 100MF 20%	25V	C121	1-163-031-11	CERAMIC CHIP 0.01MF 50V (KV-25C5B/29C5B)	
C025	1-126-960-11	ELECT 1MF 20%	50V	C122	1-104-665-11	ELECT 100MF 20% 25V (KV-25C5B/29C5B)	
				C129	1-126-963-11	ELECT 4.7MF 20% 50V	
				C133	1-162-638-11	CERAMIC CHIP 1MF 16V (KV-25C5B/29C5B)	
				C134	1-128-551-11	ELECT 22MF 20% 25V	

REF. NO.	PART. NO	DESCRIPTION	REMARK	REF. NO.	PART. NO	DESCRIPTION	REMARK
C135	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C416	1-126-964-11	ELECT 10MF	20% 50V
C137	1-163-017-91	CERAMIC CHIP 0.0047MF	10% 50V	C417	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C138	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C418	1-126-960-11	ELECT 1MF	20% 50V
C139	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C422	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C140	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C423	1-126-964-11	ELECT 10MF	20% 50V
C143	1-104-664-11	ELECT 47MF	20% 25V	C430	1-104-664-11	ELECT 47MF	20% 25V
C201	1-104-666-11	ELECT 220MF	20% 25V	C432	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C203	1-126-942-61	ELECT 1000MF	20% 25V	C433	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C204	1-126-942-61	ELECT 1000MF	20% 25V	C434	1-126-935-11	ELECT 470MF	20% 16V
C206	1-126-960-11	ELECT 1MF	20% 50V	C435	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C207	1-126-972-11	ELECT 1000MF	20% 50V	C436	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C208	1-126-960-11	ELECT 1MF	20% 50V	C437	1-535-465-11	LEAD, JUMPER (5.0MM)	
C215	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C438	1-535-465-11	LEAD, JUMPER (5.0MM)	
C301	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C443	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C302	1-126-967-11	ELECT 47MF	20% 16V	C444	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C303	1-101-004-00	CERAMIC 0.01MF	50V	C445	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C304	1-126-964-11	ELECT 10MF	20% 50V	C501	1-126-968-11	ELECT 100MF	20% 50V
C305	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C502	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C307	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C503	1-126-968-11	ELECT 100MF	20% 50V
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C504	1-106-220-00	MYLAR 0.1MF	10% 100V
C309	1-126-963-11	ELECT 4.7MF	20% 50V	C505	1-136-173-00	FILM 0.47MF	5% 50V
C312	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C506	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C313	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C507	1-126-933-11	ELECT 100MF	20% 16V
C314	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C508	1-126-960-11	ELECT 1MF	20% 50V
C316	1-163-259-91	CERAMIC CHIP 220PF	5% 50V	C509	1-137-047-11	FILM 0.01MF	10% 400V
C317	1-136-169-00	FILM 0.22MF	5% 50V	C510	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C319	1-126-964-11	ELECT 10MF	20% 50V	C512	1-162-114-00	CERAMIC 0.0047MF	2KV
C321	1-126-963-11	ELECT 4.7MF	20% 50V	C513	1-107-662-11	ELECT 22MF	20% 250V
C322	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C515	1-104-666-11	ELECT 220MF	20% 25V
C328	1-104-664-11	ELECT 47MF	20% 25V	C517	1-104-666-11	ELECT 220MF	20% 25V
C329	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C518	1-106-375-12	MYLAR 0.022MF	99% 200V
C330	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C519	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C331	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C520	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C332	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C522	1-137-399-11	FILM 0.1MF	5% 50V
C333	1-126-960-91	ELECT 1MF	20% 50V	C531	1-126-964-11	ELECT 10MF	20% 50V
C334	1-163-017-91	CERAMIC CHIP 4700PF	10% 50V	C532	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C335	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C533	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C336	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V			(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	
C337	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V			29C5E/29C5K/29C5R)	
C338	1-126-967-11	ELECT 47MF	20% 50V	C535	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C339	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C536	1-115-522-11	FILM 1MF	5% 200V
C350	1-163-017-91	CERAMIC CHIP 0.0047MF	10% 50V	C537	1-137-417-11	MYLAR 0.0047MF	10% 200V
C351	1-163-017-91	CERAMIC CHIP 0.0047MF	10% 50V	C538	1-164-004-71	CERAMIC CHIP 0.1MF	10% 25V
C401	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C539	1-126-326-51	ELECT 10MF	20% 250V
C402	1-126-960-11	ELECT 1MF	20% 50V			(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	
C403	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V		1-111-230-11	ELECT 1MF	20% 100V
C405	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V			(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
C406	1-126-960-11	ELECT 1MF	20% 50V	C540	1-106-387-00	MYLAR 0.068MF	10% 400V
C407	1-126-964-11	ELECT 10MF	20% 50V			(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	
C408	1-126-964-11	ELECT 10MF	20% 50V		1-136-206-11	FILM 0.033MF	10% 400V
						(KV-29C5A/29C5B/29C5D/29C5E/25C5K/29C5R)	
C410	1-126-964-11	ELECT 10MF	20% 50V	C541	1-106-383-00	MYLAR 0.047MF	10% 200V
C413	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C542	1-162-134-11	CERAMIC 470PF	10% 2KV
C414	1-163-141-11	CERAMIC CHIP 0.001MF	5% 50V	C543	1-162-134-11	CERAMIC 470PF	10% 2KV
		(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		C544	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
	1-126-960-11	ELECT 1MF	20% 50V	C545	1-126-960-11	ELECT 1MF	20% 50V
		(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		C546	1-130-895-00	FILM 0.056MF	5% 400V
C415	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V				

## KV-25C5/29C5

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The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C547	1-117-813-11	FILM 0.75MF	5% 200V	SWF101	1-767-874-11	FILTER, SURFACE WAVE	
C548	1-162-134-11	CERAMIC 470PF	10% 2KV			(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R/29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
C550	1-107-638-11	ELECT 33MF	20% 160V		1-579-273-11	FILTER, SURFACE WAVE	(KV-25C5B/29C5B)
C552	1-102-212-00	CERAMIC 820PF	10% 500V	SWF102	1-767-873-11	FILTER, SURFACE WAVE	
C553	1-137-417-11	MYLAR 0.0047MF	10% 200V	SWF103	1-760-722-11	FILTER, SURFACE WAVE	(KV-25C5B/29C5B)
C555	1-117-650-11	FILM 18000PF	3% 1.2KV	< CONNECTOR >			
		(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		CN001	*1-564-508-11	PLUG, CONNECTOR 5P	
	1-117-648-11	FILM 15000PF	3% 1.2KV	CN007	*1-564-510-11	PLUG, CONNECTOR 7P	
		(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		CN101	1-766-922-11	CONNECTOR, BOARD TO BOARD 18P	
C571	1-123-024-21	ELECT 33MF	160V	CN201	*1-564-507-11	PLUG, CONNECTOR 4P	
C572	1-128-526-11	ELECT 100MF	20% 16V	CN208	*1-564-508-11	PLUG, CONNECTOR 5P	
C579	1-535-465-11	LEAD, JUMPER (5.0MM)		CN406	1-564-511-11	PLUG, CONNECTOR 8P	
		(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		CN501	*1-580-798-11	CONNECTOR PIN (DY) 6P	
C580	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	CN502	1-784-633-11	PIN, CONNECTOR 4P	
C582	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	CN503	*1-564-507-11	PLUG, CONNECTOR 4P	
C584	1-126-963-11	ELECT 4.7MF	20% 50V			(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
C601	$\Delta$ 1-107-563-11	FILM 0.1MF	20% 300V	CN504	*1-564-509-11	PLUG, CONNECTOR 6P	
C602	$\Delta$ 1-107-563-11	FILM 0.1MF	20% 300V	CN505	*1-568-882-51	PIN, CONNECTOR 7P	
C603	$\Delta$ 1-117-700-51	CERAMIC 0.0022MF	99% 250V			(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
C604	$\Delta$ 1-117-700-51	CERAMIC 0.0022MF	99% 250V	CN506	1-695-915-11	TAB (CONTACT)	
C605	1-104-652-11	ELECT 470MF	20% 10V	CN509	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
C606	1-125-555-11	ELECT (BLOCK) 330MF	20% 400V			(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	
		(KV-25C5A/25C5B/25C5D/25C5E/25C5K/29C5A/29C5B/29C5D/29C5E/29C5K)		CN602	$\Delta$ 1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
	1-117-752-11	ELECT (BLOCK) 330MF	20% 450V	CN603	$\Delta$ 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
		(KV-25C5R/29C5R)		CN606	$\Delta$ *1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
C607	1-125-787-51	CERAMIC 680PF	10% 2KV	< DIODE >			
C609	1-107-915-51	ELECT 2200MF	20% 50V	D001	8-719-109-89	DIODE RD5.6ESB2	
C610	1-104-665-11	ELECT 100MF	20% 25V	D002	8-719-109-89	DIODE RD5.6ESB2	
C611	1-165-127-11	CERAMIC 470PF	10% 500V	D004	8-719-109-89	DIODE RD5.6ESB2	
C612	$\Delta$ 1-161-964-51	CERAMIC 0.0047MF	250V	D007	8-719-109-89	DIODE RD5.6ESB2	
C613	$\Delta$ 1-161-964-51	CERAMIC 0.0047MF	250V	D008	8-719-991-33	DIODE 1SS133T-77	
C614	$\Delta$ 1-161-964-51	CERAMIC 0.0047MF	250V	D009	8-719-109-89	DIODE RD5.6ESB2	
C615	1-130-202-00	FILM 0.022MF	10% 400V	D010	8-719-109-89	DIODE RD5.6ESB2	
C618	1-107-890-11	ELECT 2200MF	20% 25V	D011	8-719-109-89	DIODE RD5.6ESB2	
C621	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	D012	8-719-914-43	DIODE DAN202K	
C622	$\Delta$ 1-161-964-51	CERAMIC 0.0047MF	250V	D014	8-719-058-24	DIODE RB501V-40TE-17	
C624	1-104-665-11	ELECT 100MF	20% 25V	D015	8-719-914-43	DIODE DAN202K	
C625	1-104-665-11	ELECT 100MF	20% 25V	D017	8-719-109-89	DIODE RD5.6ESB2	
C628	1-124-347-00	ELECT 100MF	20% 160V	D018	8-719-991-33	DIODE 1SS133T-77	
C629	1-136-189-00	FILM 0.1MF	10% 250V	D023	8-719-109-89	DIODE RD5.6ESB2	
C630	1-165-127-11	CERAMIC 470PF	10% 500V	D101	8-719-982-24	DIODE MT2J-33A	
C633	1-104-332-11	CERAMIC 470PF	10% 2KV	D104	8-719-914-43	DIODE DAN202K	(KV-25C5B/29C5B)
C635	1-107-675-11	ELECT 1MF	20% 160V	D201	8-719-929-15	DIODE HZS9.1NB2	
C638	1-107-670-11	ELECT 10MF	20% 400V	D202	8-719-914-43	DIODE DAN202K	
		(KV-25C5A/25C5B/25C5D/25C5E/25C5K/29C5A/29C5B/29C5D/29C5E/29C5K)		D204	8-719-109-89	DIODE RD5.6ESB2	
	1-107-679-91	ELECT 10MF	20% 450V	D205	8-719-109-89	DIODE RD5.6ESB2	
		(KV-25C5R/29C5R)		D206	8-719-109-89	DIODE RD5.6ESB2	
C639	1-104-665-11	ELECT 100MF	20% 25V	D306	8-719-109-89	DIODE RD5.6ESB2	
C640	1-104-664-11	ELECT 47MF	20% 25V	D307	8-719-109-89	DIODE RD5.6ESB2	
C641	1-104-665-11	ELECT 100MF	20% 25V	D308	8-719-109-72	DIODE RD3.9ES-B2	
C642	1-104-665-11	ELECT 100MF	20% 25V	D309	8-719-991-33	DIODE 1SS133T-77	
C646	1-107-974-11	CERAMIC 47PF	5% 2KV	D320	8-719-929-15	DIODE HZS9.1NB2	
< FILTER >				D402	8-719-109-89	DIODE RD5.6ESB2	
CF101	1-404-134-00	TRAP, CERAMIC (5.5MHZ)		D405	8-719-109-97	DIODE RD6.8ES-B2	
CF105	1-760-154-11	TRAP, CERAMIC	(KV-25C5B/29C5B)				

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REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
D406	8-719-109-97	DIODE RD6.8ES-B2		< IC >			
D407	8-719-109-97	DIODE RD6.8ES-B2		IC001	8-759-525-78	IC SAA5497PS/M1A/040	(KV-25C5A/25C5D/ 29C5A/29C5D)
D408	8-719-929-15	DIODE HZS9.1NB2			8-759-526-01	IC SAA5497PS/M1A/038	(KV-25C5B/25C5E/25C5K/ 29C5B/29C5E/29C5K)
D409	8-719-109-97	DIODE RD6.8ES-B2			8-759-525-77	IC SAA5497PS/M1A/039	(KV-25C5R/29C5R)
D410	8-719-109-89	DIODE RD5.6ESB2		IC003	8-759-468-56	IC MN1381T	
D414	8-719-109-97	DIODE RD6.8ES-B2		IC004	8-759-432-33	IC ST24W08FM6TR	
D415	8-719-929-15	DIODE HZS9.1NB2		IC005	8-759-516-41	IC CD4052BCM	
D417	8-719-929-15	DIODE HZS9.1NB2		IC101	8-759-466-49	IC TDA9817/V1	(KV-25C5A/25C5D/25C5E/25C5K/ 25C5R/29C5A/29C5D/29C5E/ 29C5K/29C5R)
D418	8-719-929-15	DIODE HZS9.1NB2			8-759-466-47	IC TDA9818/V1	(KV-25C5B/29C5B)
D419	8-719-929-15	DIODE HZS9.1NB2		IC201	8-759-442-74	IC TDA7495	
D422	8-719-109-97	DIODE RD6.8ES-B2		IC301	8-752-082-35	IC CKA2060AS	
D423	8-719-109-97	DIODE RD6.8ES-B2		IC501	8-759-192-71	IC STV9379	
D427	8-719-929-15	DIODE HZS9.1NB2		IC531	8-759-450-95	IC LM393N	
D501	8-719-302-43	DIODE EL1Z		IC603	8-749-920-61	IC SE-135N	
D502	8-719-924-13	DIODE MTZJ-T-77-22B		IC604	8-759-524-82	IC TYA7805CTV	
D511	8-719-028-72	DIODE RGP02-17EL-6433		IC605	8-759-524-83	IC TYA7809CTV	
D512	8-719-302-43	DIODE EL1Z		IC606	8-749-013-75	IC STR-F6654	
D513	8-719-979-85	DIODE EGP20G		IC608	8-759-524-82	IC TYA7805CTV	
D514	8-719-979-85	DIODE EGP20G		IC609	8-759-468-89	IC TOP209P	
D534	8-719-302-43	DIODE EL1Z		< SOCKET >			
D535	8-719-908-03	DIODE GP08D		J401	1-766-296-11	CONNECTOR, DUAL SCART	
D536	8-719-945-80	DIODE ERC06-15S		J404	1-784-632-11	JACK, PIN 2P	
D538	8-719-908-03	DIODE GP08D		< COIL >			
D539	8-719-900-26	DIODE ERD29-08J		L001	1-408-603-31	INDUCTOR	10UH
D541	1-535-465-11	LEAD, JUMPER (5.0MM)		L102	1-408-599-21	INDUCTOR	4.7UH
D571	8-719-911-19	DIODE 1SS119-25		L103	1-403-686-11	COIL	
D573	8-719-921-40	DIODE MTZJ-4.7C		L104	1-410-671-31	INDUCTOR	47UH
D601	8-719-510-53	DIODE D4SB60L		L106	1-408-417-00	INDUCTOR	47UH
D602	8-719-046-74	DIODE AU-01Z-V1		L108	1-410-985-11	INDUCTOR CHIP	0.22UH (KV-25C5B/29C5B)
D603	8-719-312-61	DIODE EU-1Z		L109	1-410-789-11	INDUCTOR	0.47UH (KV-25C5B/29C5B)
D605	8-719-312-10	DIODE RU4AM-T3		L201	1-535-465-11	LEAD, JUMPER (5.0MM)	
D608	8-719-067-88	DIODE RG1CLF-B1		L202	1-535-465-11	LEAD, JUMPER (5.0MM)	
D610	8-719-067-78	DIODE RN3Z-LF014-302		L203	1-406-979-11	INDUCTOR	0UH
D613	8-719-911-19	DIODE 1SS119-25		L302	1-408-417-31	INDUCTOR	47UH
D614	8-719-058-38	DIODE FMN-G12S		L303	1-408-609-41	INDUCTOR	33UH
D619	8-719-043-76	DIODE AK04V0		L401	1-408-417-31	INDUCTOR	47UH
D621	8-719-068-00	DIODE ERC04-06SE		L402	1-408-417-31	INDUCTOR	47UH
D626	8-719-068-00	DIODE ERC04-06SE		L405	1-216-295-00	SHORT	0
D627	8-719-510-26	DIODE DINL20		L406	1-216-295-00	SHORT	0
D628	8-719-059-23	DIODE P6KE200AG23		L501	1-408-417-31	INDUCTOR	47UH
D629	8-719-979-64	DIODE UF4005PKG23		L502	1-412-529-11	INDUCTOR	22UH
D631	8-719-110-31	DIODE RD12ES-B2		L503	1-412-521-31	INDUCTOR	4.7UH
D632	8-719-510-64	DIODE S2LA20F		L532	1-412-552-11	INDUCTOR	2.2MMH
D633	8-719-109-89	DIODE RD5.6ESB2			1-412-553-11	INDUCTOR	3.3MMH
< FERRITE BEAD >							(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
FB001	1-412-911-11	FERRITE	0UH				(KV-29C5A/29C5B/29C5D/29C5E/25C5K/29C5R)
FB002	1-412-911-11	FERRITE	0UH	L533	1-406-989-21	INDUCTOR	0UH
FB601	1-412-911-11	FERRITE	0UH	L535	1-459-111-00	INDUCTOR	0UH
FB602	1-412-911-11	FERRITE	0UH				
FB605	1-410-397-21	FERRITE	1.1UH				
FB608	1-412-911-11	FERRITE	0UH				
FB609	1-535-465-11	LEAD, JUMPER (5.0MM)					
FB610	1-410-397-21	FERRITE	1.1UH				
FB611	1-410-397-21	FERRITE	1.1UH				
FB612	1-535-465-11	LEAD, JUMPER (5.0MM)					



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The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

REF. NO.	PART. NO	DESCRIPTION	REMARK	REF. NO.	PART. NO	DESCRIPTION	REMARK
L537	1-406-214-11	COIL, HORIZONTAL LINEARITY (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		JW220	8-719-109-89	DIODE RD5.6ESB2	
	1-409-855-11	COIL, HORIZONTAL LINEARITY (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		R001	1-216-025-00	RES,CHIP 100 5%	1/10W
L540	1-535-465-11	LEAD JUMPER (5.0MM)		R002	1-216-025-00	RES,CHIP 100 5%	1/10W
L571	1-412-533-21	INDUCTOR 470H		R003	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
L602	1-408-417-00	INDUCTOR 470H		R004	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
		< PHOTO COUPLER >		R005	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
PH601 $\Delta$	8-749-010-64	PHOTO COUPLER PC123F2		R007	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
		< TRANSISTOR >		R009	1-216-025-00	RES,CHIP 100 5%	1/10W
Q004	8-729-216-22	TRANSISTOR 2SA1162-G		R010	1-216-025-00	RES,CHIP 100 5%	1/10W
Q005	1-801-806-11	TRANSISTOR DTC144EKA		R011	1-216-025-00	RES,CHIP 100 5%	1/10W
Q006	1-801-806-11	TRANSISTOR DTC144EKA		R012	1-247-807-31	CARBON 100 5%	1/4W
Q007	8-729-620-06	TRANSISTOR 2SC3052-EF		R013	1-216-214-00	RES,CHIP 4.7K 5%	1/8W
Q008	8-729-620-06	TRANSISTOR 2SC3052-EF		R014	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q009	8-729-620-06	TRANSISTOR 2SC3052-EF		R015	1-216-049-00	RES,CHIP 1K 5%	1/10W
Q010	8-729-620-06	TRANSISTOR 2SC3052-EF		R016	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q011	1-801-806-11	TRANSISTOR DTC144EK		R019	1-216-053-00	RES,CHIP 1.5K 5%	1/10W
Q012	8-729-620-06	TRANSISTOR 2SC3052-EF		R023	1-216-295-00	SHORT 0	
Q013	8-729-620-06	TRANSISTOR 2SC3052-EF (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		R029	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q014	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R030	1-216-081-00	RES,CHIP 22K 5%	1/10W
Q101	8-729-216-22	TRANSISTOR 2SA1162-G		R032	1-216-089-00	RES,CHIP 47K 5%	1/10W
Q107	8-729-022-54	TRANSISTOR 2SC3779C,D-AA	(KV-25C5B/29C5B)	R034	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
Q109	1-801-806-11	TRANSISTOR DTC144EKA	(KV-25C5B/29C5B)	R035	1-216-049-00	RES,CHIP 1K 5%	1/10W
Q110	1-801-806-11	TRANSISTOR DTC144EKA	(KV-25C5B/29C5B)	R036	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
Q111	8-729-216-22	TRANSISTOR 2SA1162-G	(KV-25C5B/29C5B)	R038	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q112	1-801-806-11	TRANSISTOR DTC144EKA	(KV-25C5B/29C5B)	R039	1-216-089-00	RES,CHIP 47K 5%	1/10W
Q202	8-729-620-06	TRANSISTOR 2SC3052-EF		R050	1-216-041-00	RES,CHIP 470 5%	1/10W
Q401	8-729-216-22	TRANSISTOR 2SA1162-G		R051	1-216-049-00	RES,CHIP 1K 5%	1/10W
Q405	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R053	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
Q408	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R054	1-216-041-00	RES,CHIP 470 5%	1/10W
Q501	8-729-620-06	TRANSISTOR 2SC3052-EF		R055	1-216-081-00	RES,CHIP 22K 5%	1/10W
Q532	8-729-038-83	TRANSISTOR 2SK2251-01-F19		R056	1-216-105-00	RES,CHIP 220K 5%	1/10W
Q533	8-729-040-62	TRANSISTOR 2SD2539 (LBSONY)		R057	1-216-075-00	RES,CHIP 12K 5%	1/10W
Q535	8-729-119-80	TRANSISTOR 2SC2688-LK		R058	1-216-063-91	RES,CHIP 3.9K 5%	1/10W
Q571	8-729-105-08	TRANSISTOR 2SA1330-06		R059	1-216-089-00	RES,CHIP 47K 5%	1/10W
Q574	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R060	1-216-174-00	RES,CHIP 100 5%	1/8W
Q575	1-801-806-11	TRANSISTOR DTC144EKA		R061	1-216-174-00	RES,CHIP 100 5%	1/8W
Q576	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R062	1-216-033-00	RES,CHIP 220 5%	1/10W
Q601	8-729-216-22	TRANSISTOR 2SA1162-G		R063	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
		< RESISTOR >		R064	1-216-065-00	RES,CHIP 4.7K 5%	1/10W (KV-25C5B/29C5B)
JR012	1-216-295-00	SHORT 0	(KV-25C5A/25C5D/25C5E/25C5K/25C5R/29C5A/29C5D/29C5E/29C5K/29C5R)	R065	1-216-025-00	RES,CHIP 100 5%	1/10W
JR023	1-216-296-00	SHORT 0		R066	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
JR031	1-216-295-00	SHORT 0		R067	1-216-065-00	RES,CHIP 4.7K 5%	1/10W
JR033	1-216-296-00	SHORT 0		R069	1-216-049-00	RES,CHIP 1K 5%	1/10W
JR403	1-216-073-00	RES,CHIP 10K 5%	1/10W	R070	1-216-081-00	RES,CHIP 22K 5%	1/10W
JR409	1-216-295-00	SHORT 0		R071	1-216-214-00	RES,CHIP 4.7K 5%	1/8W
JR411	1-216-295-00	SHORT 0		R072	1-216-097-00	RES,CHIP 100K 5%	1/10W
JR412	1-216-295-00	SHORT 0		R073	1-216-097-00	RES,CHIP 100K 5%	1/10W
JR610	1-216-296-00	SHORT 0		R075	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
JR613	1-216-296-00	SHORT 0		R077	1-216-083-00	RES,CHIP 27K 5%	1/10W
				R078	1-216-065-00	RES,CHIP 4.7K 5%	1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
				R080	1-216-073-00	RES,CHIP 10K 5%	1/10W
				R081	1-216-073-00	RES,CHIP 10K 5%	1/10W



REF. NO.	PART. NO	DESCRIPTION	REMARK	REF. NO.	PART. NO	DESCRIPTION	REMARK
R082	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R154	1-216-238-91	RES,CHIP	47K 5% 1/8W
R083	1-216-031-00	RES,CHIP	180 5% 1/10W	R155	1-216-089-00	RES,CHIP	47K 5% 1/10W
R084	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R156	1-216-073-00	RES,CHIP	10K 5% 1/10W
R085	1-216-031-00	RES,CHIP	180 5% 1/10W				(KV-25C5B/29C5B)
R086	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R157	1-216-063-91	RES,CHIP	3.9K 5% 1/10W
							(KV-25C5B/29C5B)
R087	1-216-180-00	RES,CHIP	180 5% 1/8W	R158	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R088	1-216-065-00	RES,CHIP	4.7K 5% 1/10W				(KV-25C5B/29C5B)
R089	1-216-081-00	RES,CHIP	22K 5% 1/10W	R204	1-247-863-91	CARBON	22K 5% 1/4W
		(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		R206	1-216-085-00	RES,CHIP	33K 5% 1/10W
R090	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R207	1-216-295-00	SHORT	0
		(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)					
R091	1-216-081-00	RES,CHIP	22K 5% 1/10W	R209	1-216-065-00	RES,CHIP	4.7K 5% 1/10W
		(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		R211	1-215-873-00	METAL OXIDE	4.7K 5% 1W F
R092	1-216-073-00	RES,CHIP	10K 5% 1/10W	R213	1-216-089-00	RES,CHIP	47K 5% 1/10W
		(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		R301	1-216-025-00	RES,CHIP	100 5% 1/10W
R093	1-216-230-00	RES,CHIP	22K 5% 1/8W	R302	1-216-081-00	RES,CHIP	22K 5% 1/10W
R094	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R303	1-216-073-00	RES,CHIP	10K 5% 1/10W
R095	1-216-025-00	RES,CHIP	100 5% 1/10W	R304	1-216-073-00	RES,CHIP	10K 5% 1/10W
R096	1-247-807-31	CARBON	100 5% 1/4W	R306	1-216-206-00	RES,CHIP	2.2K 5% 1/8W
R097	1-247-807-31	CARBON	100 5% 1/4W	R309	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
R098	1-247-807-31	CARBON	100 5% 1/4W	R310	1-216-022-00	RES,CHIP	75 5% 1/10W
R099	1-247-807-31	CARBON	100 5% 1/4W	R311	1-216-022-00	RES,CHIP	75 5% 1/10W
R101	1-216-049-00	RES,CHIP	1K 5% 1/10W	R313	1-216-025-00	RES,CHIP	100 5% 1/10W
R106	1-215-900-11	METAL OXIDE	22K 5% 2W F	R314	1-216-025-00	RES,CHIP	100 5% 1/10W
R110	1-216-296-91	SHORT	0 (KV-25C5B/29C5B)	R315	1-216-075-91	RES,CHIP	12K 5% 1/10W
R111	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R316	1-216-025-00	RES,CHIP	100 5% 1/10W
			(KV-25C5B/29C5B)				
R112	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R317	1-216-049-00	RES,CHIP	1K 5% 1/10W
			(KV-25C5B/29C5B)	R318	1-216-025-00	RES,CHIP	100 5% 1/10W
R116	1-249-437-11	CARBON	47K 5% 1/4W	R319	1-216-025-00	RES,CHIP	100 5% 1/10W
			(KV-25C5E/25C5K/29C5E/29C5K)	R320	1-216-025-00	RES,CHIP	100 5% 1/10W
R120	1-216-037-00	RES,CHIP	330 5% 1/10W	R321	1-216-025-00	RES,CHIP	100 5% 1/10W
R121	1-216-025-00	RES,CHIP	100 5% 1/10W	R323	1-216-025-00	RES,CHIP	100 5% 1/10W
R122	1-216-025-00	RES,CHIP	100 5% 1/10W	R324	1-412-002-21	INDUCTOR	4.7UH 5% 1/10W
R127	1-216-031-00	RES,CHIP	180 5% 1/10W	R325	1-412-002-21	INDUCTOR	4.7UH 5% 1/10W
			(KV-25C5B/29C5B)	R326	1-216-129-00	RES,CHIP	2.2M 5% 1/10W
R128	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	R327	1-216-295-00	SHORT	0
			(KV-25C5B/29C5B)				
R129	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R331	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
			(KV-25C5B/29C5B)	R332	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R133	1-216-295-00	SHORT	0 (KV-25C5A/25C5D/25C5E/25C5K/25C5R/29C5A/29C5D/29C5E/29C5K/29C5R)	R333	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
				R334	1-216-025-00	RES,CHIP	100 5% 1/10W
R142	1-216-295-00	SHORT	0	R335	1-216-025-00	RES,CHIP	100 5% 1/10W
R143	1-216-025-00	RES,CHIP	100 5% 1/10W				
R144	1-216-079-00	RES,CHIP	18K 5% 1/10W	R337	1-216-065-00	RES,CHIP	4.7K 5% 1/10W
R145	1-216-212-00	RES,CHIP	3.9K 5% 1/8W	R338	1-216-049-00	RES,CHIP	1K 5% 1/10W
R147	1-216-017-91	RES,CHIP	47 5% 1/10W	R401	1-216-113-00	RES,CHIP	470K 5% 1/10W
			(KV-25C5B/29C5B)	R403	1-216-041-00	RES,CHIP	470 5% 1/10W
				R404	1-216-113-00	RES,CHIP	470K 5% 1/10W
R148	1-216-174-00	RES,CHIP	100 5% 1/8W				
			(KV-25C5B/29C5B)	R405	1-216-295-00	SHORT	0
R149	1-216-049-00	RES,CHIP	1K 5% 1/10W	R406	1-216-113-00	RES,CHIP	470K 5% 1/10W
			(KV-25C5B/29C5B)	R408	1-216-022-00	RES,CHIP	75 5% 1/10W
R151	1-216-049-00	RES,CHIP	1K 5% 1/10W	R409	1-216-029-71	RES,CHIP	150 5% 1/10W
				R410	1-216-029-71	RES,CHIP	150 5% 1/10W
R152	1-216-025-00	RES,CHIP	100 5% 1/10W				
			(KV-25C5B/29C5B)	R411	1-216-022-00	RES,CHIP	75 5% 1/10W
R153	1-216-180-00	RES,CHIP	180 5% 1/8W	R412	1-216-029-71	RES,CHIP	150 5% 1/10W
			(KV-25C5B/29C5B)	R413	1-216-295-00	SHORT	0
				R414	1-216-022-00	RES,CHIP	75 5% 1/10W
				R415	1-216-022-00	RES,CHIP	75 5% 1/10W
				R417	1-260-158-11	CARBON	75 5% 1/2W

## KV-25C5/29C5

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REF. NO.	PART. NO	DESCRIPTION	REMARK	REF. NO.	PART. NO	DESCRIPTION	REMARK
R418	1-260-095-11	CARBON	470 5% 1/2W (KV-25C5A/25C5D/25C5E/25C5R/ 29C5A/29C5D/29C5E/29C5R)	R522	1-216-097-00	RES,CHIP	100K 5% 1/10W
	1-247-823-31	CARBON	470 5% 1/4W (KV-25C5B/25C5K/29C5B/29C5K)	R523	1-216-117-00	RES,CHIP	680K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R419	1-216-022-00	RES,CHIP	75 5% 1/10W		1-208-845-11	RES,CHIP	1M 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R420	1-216-041-00	RES,CHIP	470 5% 1/10W	R524	1-216-083-00	RES,CHIP	27K 5% 1/10W
R421	1-216-113-00	RES,CHIP	470K 5% 1/10W	R525	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R422	1-216-295-00	SHORT	0	R526	1-216-089-00	RES,CHIP	47K 5% 1/10W
R425	1-216-077-00	RES,CHIP	15K 5% 1/10W	R527	1-216-077-00	RES,CHIP	15K 5% 1/10W
R426	1-216-073-00	RES,CHIP	10K 5% 1/10W	R528	1-216-246-00	RES,CHIP	100K 5% 1/8W
R427	1-216-113-00	RES,CHIP	470K 5% 1/10W	R529	1-216-073-00	RES,CHIP	10K 5% 1/10W
R429	1-216-041-00	RES,CHIP	470 5% 1/10W	R530	1-216-085-00	RES,CHIP	33K 5% 1/10W
R430	1-216-113-00	RES,CHIP	470K 5% 1/10W	R531	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R431	1-216-295-00	SHORT	0	R532	1-216-063-91	RES,CHIP	3.9K 5% 1/10W
R432	1-216-113-00	RES,CHIP	470K 5% 1/10W	R533	1-216-081-00	RES,CHIP	22K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R435	1-216-022-00	RES,CHIP	75 5% 1/10W		1-216-073-00	RES,CHIP	10K 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R436	1-216-041-00	RES,CHIP	470 5% 1/10W	R534	1-216-107-00	RES,CHIP	270K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R439	1-216-049-00	RES,CHIP	1K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		1-216-113-00	RES,CHIP	470K 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
	1-216-041-00	RES,CHIP	470 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	R535	1-216-109-00	RES,CHIP	330K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R440	1-216-113-00	RES,CHIP	470K 5% 1/10W		1-216-101-00	RES,CHIP	150K 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R441	1-216-295-00	SHORT	0	R539	1-216-049-00	RES,CHIP	1K 5% 1/10W
R442	1-216-077-00	RES,CHIP	15K 5% 1/10W	R540	1-216-449-11	METAL OXIDE	56 5% 1W F (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R443	1-216-073-00	RES,CHIP	10K 5% 1/10W		1-215-861-00	METAL OXIDE	47 5% 1W F (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R450	1-216-041-00	RES,CHIP	470 5% 1/10W	R541	1-216-095-00	RES,CHIP	82K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R454	1-216-041-00	RES,CHIP	470 5% 1/10W		1-216-097-00	RES,CHIP	100K 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R457	1-216-025-00	RES,CHIP	100 5% 1/10W	R542	1-216-089-00	RES,CHIP	47K 5% 1/10W
R459	1-247-807-31	CARBON	100 5% 1/4W	R543	1-216-089-00	RES,CHIP	47K 5% 1/10W
R460	1-249-403-11	CARBON	68 5% 1/4W	R546	1-249-401-11	CARBON	47 5% 1/4W F (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R501	1-216-081-00	RES,CHIP	22K 5% 1/10W		1-215-893-11	METAL OXIDE	1.5K 5% 2W F (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R502	1-216-097-00	RES,CHIP	100K 5% 1/10W	R547	1-535-143-11	LEAD, JUMPER (7.5MM)	
R503	1-215-888-00	METAL OXIDE	220 5% 2W F		1-215-893-11	METAL OXIDE	1.5K 5% 2W F (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R504	1-249-385-11	CARBON	2.2 5% 1/4W F	R548	1-216-397-11	METAL OXIDE	4.7 5% 3W F
R505	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	R549	1-216-341-11	METAL OXIDE	0.22 5% 1W F
R506	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R551	1-215-873-00	METAL OXIDE	4.7K 5% 1W F
R507	1-216-349-00	METAL OXIDE	1 5% 1W F	R552	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R508	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	R553	1-249-381-11	CARBON	1 5% 1/4W F
R509	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R571	1-249-417-11	CARBON	1K 5% 1/4W F
R510	1-216-081-00	RES,CHIP	22K 5% 1/10W	R572	1-216-369-00	METAL OXIDE	1 5% 2W F
R511	1-215-869-11	METAL OXIDE	1K 5% 1W F	R573	1-216-101-00	RES,CHIP	150K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)
R512	1-249-377-11	CARBON	0.47 5% 1/4W F		1-216-097-00	RES,CHIP	100K 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)
R513	1-216-097-00	RES,CHIP	100K 5% 1/10W	R574	1-216-065-00	RES,CHIP	4.7K 5% 1/10W
R514	1-249-377-11	CARBON	0.47 5% 1/4W F	R575	1-216-097-00	RES,CHIP	100K 5% 1/10W
R515	1-249-377-11	CARBON	0.47 5% 1/4W F				
R516	1-249-493-11	CARBON	56K 5% 1/2W				
R517	1-249-434-11	CARBON	27K 5% 1/4W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)				
	1-249-429-11	CARBON	10K 5% 1/4W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)				
R518	1-216-065-00	RES,CHIP	4.7K 5% 1/10W				
R520	1-215-884-11	METAL OXIDE	47 5% 2W F				
R521	1-216-117-00	RES,CHIP	680K 5% 1/10W (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)				
	1-208-845-11	RES,CHIP	1M 5% 1/10W (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)				

The components identified by shading and marked  $\Delta$  are critical for safety.  
Replace only with the part number specified.

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REF. NO.	PART. NO.	DESCRIPTION	REMARK	REF. NO.	PART. NO.	DESCRIPTION	REMARK
R576	1-408-599-21	INDUCTOR	4.7UH 5% 1/4W	< THERMISTOR >			
R581	1-216-089-00	RES,CHIP	47K 5% 1/10W	TBP601 $\Delta$ 1-810-961-11 THERMISTOR, POSITIVE			
R582	1-216-089-00	RES,CHIP	47K 5% 1/10W	< TUNER >			
R583	1-216-081-00	RES,CHIP	22K 5% 1/10W	TU101	8-598-361-01	TUNER (BTP-AC402)	(KV-25C5A/25C5D/25C5R/29C5A/29C5D/29C5R)
R588	1-216-053-00	RES,CHIP	1.5K 5% 1/10W		1-693-418-11	TUNER (TELE9-001A)	(KV-25C5B/29C5B)
R589	1-216-097-00	RES,CHIP	100K 5% 1/10W		8-598-432-00	TUNER (BTP-AC411)	(KV-25C5E/25C5K/29C5E/29C5K)
R590	1-216-081-00	RES,CHIP	22K 5% 1/10W	< CRYSTAL >			
R591	1-215-892-11	METAL OXIDE	1K 5% 2W F	X001	1-578-774-11	VIBRATOR, CRYSTAL	
R593	1-249-439-11	CARBON	68K 5% 1/4W	X302	1-567-505-11	OSCILLATOR, CRYSTAL	
R594	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	X303	1-567-504-11	OSCILLATOR, CRYSTAL	
R602	1-202-961-11	CEMENTED	1.8 5% 10W	*****			
R603	1-202-933-61	FUSIBLE	0.1 10% 1/2W F	*A-1638-111-A C BOARD, COMPLETE			
R607 $\Delta$	1-202-961-11	CEMENTED	1.8 5% 10W	*****			
R608	1-215-927-00	METAL OXIDE	47K 5% 3W F	< CAPACITOR >			
R611	1-249-415-11	CARBON	680 5% 1/4W	C701	1-102-114-00	CERAMIC	470PF 10% 50V
R613 $\Delta$	1-240-030-91	METAL	4.7M 5% 1/2W	C702	1-102-115-00	CERAMIC	560PF 10% 50V
R614 $\Delta$	1-240-030-91	METAL	4.7M 5% 1/2W	C703	1-102-116-00	CERAMIC	680PF 10% 50V
R615	1-249-422-11	CARBON	2.7K 5% 1/4W	C708	1-162-114-00	CERAMIC	0.0047MF 2KV
R616	1-216-393-00	METAL OXIDE	2.2 5% 3W F	C710	1-107-652-11	ELECT	10MF 20% 250V
R617	1-249-405-11	CARBON	100 5% 1/4W F	C711	1-102-114-00	CERAMIC	470PF 10% 50V
R619	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	C712	1-102-116-00	CERAMIC	680PF 10% 50V
R622	1-249-401-11	CARBON	47 5% 1/4W	C714	1-126-967-11	ELECT	47MF 20% 16V
R627	1-249-389-11	CARBON	4.7 5% 1/4W F	C717	1-102-114-00	CERAMIC	470PF 10% 50V
R628	1-247-791-91	CARBON	22 5% 1/4W	C718	1-102-114-00	CERAMIC	470PF 10% 50V
R652	1-216-393-00	METAL OXIDE	2.2 5% 3W F	C719	1-102-114-00	CERAMIC	470PF 10% 50V
R653	1-216-393-00	METAL OXIDE	2.2 5% 3W F	C722	1-101-880-00	CERAMIC	47PF 5% 50V
R658	1-215-929-11	METAL OXIDE	100K 5% 3W F	C723	1-101-880-00	CERAMIC	47PF 5% 50V
R659	1-216-383-21	METAL OXIDE	0.33 5% 3W F	C724	1-101-880-00	CERAMIC	47PF 5% 50V
R660	1-216-384-21	METAL OXIDE	0.39 5% 3W F	< CONNECTOR >			
R661	1-247-843-11	CARBON	3.3K 5% 1/4W	CN701	1-784-633-11	PIN, CONNECTOR 4P	
R662	1-215-929-11	METAL OXIDE	100K 5% 3W F	CN702	1-695-915-11	TAB (CONTACT)	
R664	1-249-417-11	CARBON	1K 5% 1/4W	CN703	*1-564-509-11	PLUG, CONNECTOR 6P	
R665	1-215-877-11	METAL OXIDE	22K 5% 1W F	< DIODE >			
R667	1-215-927-00	METAL OXIDE	47K 5% 3W F	D702	8-719-991-33	DIODE 1SS133T-77	
< VARIABLE RESISTOR >				D703	1-719-991-33	DIODE 1SS133T-77	
RV101	1-241-765-11	RES, ADJ, CARBON 22K	(KV-25C5B/29C5B)	D704	1-719-991-33	DIODE 1SS133T-77	
< RELAY >				D705	1-719-991-33	DIODE 1SS133T-77	
RY601 $\Delta$	1-755-245-11	RELAY, AC POWER		D706	8-719-991-33	DIODE 1SS133T-77	
< SWITCH >				D707	8-719-991-33	DIODE 1SS133T-77	
SW532	1-572-707-11	SWITCH, LEVER		D708	8-719-991-33	DIODE 1SS133T-77	
< TRANSFORMER >				D709	8-719-991-33	DIODE 1SS133T-77	
T511 $\Delta$	1-453-264-11	TRANSFORMER ASSY, FLYBACK (NK-1680/U2B4)	(KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)	D710	8-719-991-33	DIODE 1SS133T-77	
	$\Delta$ 1-453-265-11	TRANSFORMER ASSY, FLYBACK (NK-1681/U2B4)	(KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)	D711	1-216-349-51	RESISTOR METAL 1	5% 1W
T531	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE		D714	8-719-991-33	DIODE 1SS133T-77	
T532	1-431-228-11	TRANSFORMER, POWER MODULATION		D715	8-719-991-33	DIODE 1SS133T-77	
T601 $\Delta$	1-427-962-11	TRANSFORMER, LINE FILTER		D716	8-719-991-33	DIODE 1SS133T-77	
T602	1-431-732-11	TRANSFORMER, CONVERTER (SRT)		D717	8-719-991-33	DIODE 1SS133T-77	
T603 $\Delta$	1-431-777-11	TRANSFORMER, CONVERTER		D718	8-719-991-33	DIODE 1SS133T-77	

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VM

The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
D719	8-719-991-33	DIODE 1SS133T-77		R746	1-249-421-11	CARBON 2.2K 5% 1/4W	
< CRT SOCKET >				< VARIABLE RESISTOR >			
J701	$\Delta$ 1-526-990-21	SOCKET, CRT		RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
< COIL >				RV702	1-241-656-21	RES, ADJ, METAL FILM 110M	
L704	1-408-609-41	INDUCTOR 33UH		*****			
< TRANSISTOR >				*A-1644-088-A VM BOARD, COMPLETE (KV-29C5 ONLY)			
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE		*****			
Q703	8-729-906-70	TRANSISTOR BF871-127		4-382-854-11 SCREW (M3X10), P, 5W (+)			
Q704	8-729-200-17	TRANSISTOR BF421L-AMMO		< CAPACITOR >			
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE		C1701	1-126-933-11	ELECT 100MF 20% 16V	
Q706	8-729-906-70	TRANSISTOR BF871-127		C1702	1-128-551-11	ELECT 22MF 20% 25V	
Q707	8-729-200-17	TRANSISTOR BF421L-AMMO		C1703	1-126-933-11	ELECT 100MF 20% 16V	
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE		C1704	1-107-357-11	FILM 0.47MF 5% 100V	
Q709	8-729-906-70	TRANSISTOR BF871-127		C1705	1-107-638-11	ELECT 33MF 20% 160V	
Q710	8-729-200-17	TRANSISTOR BF421L-AMMO		C1706	1-104-999-11	FILM 0.1MF 5% 200V	
< RESISTOR >				C1707	1-136-207-11	FILM 0.047MF 10% 250V	
R701	1-247-895-91	CARBON 470K 5% 1/4W		C1708	1-137-364-11	FILM 0.001MF 5% 50V	
R704	1-216-486-00	METAL OXIDE 8.2K 5% 3W F		C1709	1-137-364-11	FILM 0.001MF 5% 50V	
R705	1-260-103-11	CARBON 2.2K 5% 1/2W		C1710	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
R706	1-247-815-91	CARBON 220 5% 1/4W		C1720	1-107-667-11	ELECT 2.2MF 20% 160V	
R707	1-247-815-91	CARBON 220 5% 1/4W		C1721	1-136-207-11	FILM 0.047MF 10% 250V	
R708	1-247-791-91	CARBON 22 5% 1/4W		C1722	1-126-934-11	ELECT 220MF 20% 16V	
R709	1-202-844-00	SOLID 330K 10% 1/2W		C1723	1-161-830-00	CERAMIC 0.0047MF 500V	
R711	1-247-843-11	CARBON 3.3K 5% 1/4W		C1726	1-126-934-11	ELECT 220MF 20% 16V	
R712	1-260-103-11	CARBON 2.2K 5% 1/2W		C1803	1-163-037-11	CERAMIC CHIP 0.022MF 10% 50V	
R713	1-247-875-91	CARBON 68K 5% 1/4W		C1804	1-126-964-11	ELECT 10MF 20% 50V	
R714	1-216-486-00	METAL OXIDE 8.2K 5% 3W F		C1805	1-137-366-11	FILM 0.0022MF 5% 50V	
R715	1-249-417-11	CARBON 1K 5% 1/4W		C1841	1-163-023-00	CERAMIC CHIP 0.015MF 10% 50V	
R716	1-247-815-91	CARBON 220 5% 1/4W		C1844	1-130-959-00	FILM 0.047MF 10% 400V	
R717	1-247-815-91	CARBON 220 5% 1/4W		C1845	1-136-175-00	FILM 0.68MF 5% 50V	
R718	1-202-814-11	SOLID 33K 10% 1/2W		C1901	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
R719	1-247-791-91	CARBON 22 5% 1/4W		C1902	1-137-374-11	FILM 0.047MF 5% 50V	
R720	1-247-843-11	CARBON 3.3K 5% 1/4W		C1903	1-126-964-11	ELECT 10MF 20% 50V	
R722	1-202-848-00	SOLID 680K 10% 1/2W		C1904	1-137-366-11	FILM 0.0022MF 5% 50V	
R723	1-249-417-11	CARBON 1K 5% 1/4W		C1905	1-137-374-11	FILM 0.047MF 5% 50V	
R724	1-260-131-11	CARBON 470K 5% 1/2W		C1906	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R726	1-260-103-11	CARBON 2.2K 5% 1/2W		C1911	1-136-189-00	FILM 0.1MF 10% 250V	
R727	1-247-815-91	CARBON 220 5% 1/4W		C1912	1-129-702-00	FILM 0.001MF 5% 630V	
R728	1-216-351-00	METAL OXIDE 1.5 5% 1W F		C1913	1-136-558-11	FILM 0.0039MF 5% 630V	
R729	1-247-815-91	CARBON 220 5% 1/4W		C1914	1-102-157-00	CERAMIC 560PF 10% 500V	
R730	1-247-791-91	CARBON 22 5% 1/4W		C1915	1-137-102-11	FILM 0.022MF 10% 250V	
R731	1-247-843-11	CARBON 3.3K 5% 1/4W		C1951	1-126-964-11	ELECT 10MF 20% 50V	
R733	1-247-823-91	CARBON 470 5% 1/4W		C1952	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R734	1-247-807-31	CARBON 100 5% 1/4W		C1953	1-136-165-00	FILM 0.1MF 5% 50V	
R735	1-247-823-91	CARBON 470 5% 1/4W		C1954	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R736	1-216-486-00	METAL OXIDE 8.2K 5% 3W F		C1955	1-136-165-00	FILM 0.1MF 5% 50V	
R737	1-214-891-91	CARBON 330K 5% 1/4W		C1956	1-126-964-11	ELECT 10MF 20% 50V	
R739	1-249-417-11	CARBON 1K 5% 1/4W		C1957	1-126-964-11	ELECT 10MF 20% 50V	
R740	1-247-823-11	CARBON 470 5% 1/4W		C1958	1-136-173-00	FILM 0.47MF 5% 50V	
R741	1-202-549-00	SOLID 100 20% 1/2W		C1959	1-107-714-11	ELECT 10MF 20% 50V	
R744	1-249-421-11	CARBON 2.2K 5% 1/4W		C1960	1-107-636-11	ELECT 10MF 20% 160V	
R745	1-249-421-11	CARBON 2.2K 5% 1/4W					

REF.NO. PART.NO DESCRIPTION REMARK

## &lt; CONNECTOR &gt;

CN1705 \*1-564-510-11 PLUG, CONNECTOR 7P  
 CN1718 1-774-418-11 CONNECTOR, BOARD TO BOARD 8P  
 CN1801 \*1-564-506-11 PLUG, CONNECTOR 3P  
 CN1803 \*1-564-507-11 PLUG, CONNECTOR 4P  
 CN1809 \*1-508-784-12 PIN, CONNECTOR (5MM PITCH) 1P

## &lt; DIODE &gt;

D1701 8-719-991-33 DIODE 1SS133T-77  
 D1702 8-719-110-88 DIODE RD39ES-B2  
 D1703 8-719-110-88 DIODE RD39ES-B2  
 D1801 8-719-110-17 DIODE RD10ESB2  
 D1802 8-719-110-17 DIODE RD10ESB2  
 D1803 8-719-110-17 DIODE RD10ESB2  
 D1840 8-719-302-43 DIODE EL1Z  
 D1841 8-719-991-33 DIODE 1SS133T-77  
 D1901 8-719-991-33 DIODE 1SS133T-77  
 D1902 8-719-991-33 DIODE 1SS133T-77  
 D1903 8-719-991-33 DIODE 1SS133T-77  
 D1904 8-719-991-33 DIODE 1SS133T-77  
 D1905 8-719-923-60 DIODE MTZJ-T-77-9.1A  
 D1906 8-719-970-87 DIODE ERA38-06  
 D1907 8-719-970-87 DIODE ERA38-06  
 D1908 8-719-300-33 DIODE RU-3AM  
 D1909 8-719-991-33 DIODE 1SS133T-77  
 D1910 8-719-991-33 DIODE 1SS133T-77

## &lt; IC &gt;

IC1801 8-759-603-37 IC M5216P  
 IC1901 8-759-450-95 IC LM393N  
 IC1902 8-759-008-70 IC LM358N

## &lt; COIL &gt;

L1701 1-408-603-31 INDUCTOR 10UH  
 L1702 1-408-597-31 INDUCTOR 3.3UH  
 L1703 1-408-603-31 INDUCTOR 10UH  
 L1704 1-249-422-11 CARBON 2.7K 5% 1/4W  
 L1841 1-406-674-11 INDUCTOR 0UH  
 L1843 1-406-989-21 INDUCTOR 0UH  
 L1901 1-406-677-11 INDUCTOR 0UH

## &lt; TRANSISTOR &gt;

Q1701 8-729-120-28 TRANSISTOR 2SC1623-L5L6  
 Q1702 8-729-120-28 TRANSISTOR 2SC1623-L5L6  
 Q1703 8-729-017-05 TRANSISTOR 2SA1837  
 Q1704 8-729-119-78 TRANSISTOR 2SC2785-HFE  
 Q1706 8-729-017-06 TRANSISTOR 2SC4793  
 Q1708 8-729-216-22 TRANSISTOR 2SA1162-G  
 Q1709 8-729-120-28 TRANSISTOR 2SC1623-L5L6  
 Q1710 8-729-620-06 TRANSISTOR 2SC3052-EF  
 Q1840 8-729-120-28 TRANSISTOR 2SC1623-L5L6  
 Q1841 8-729-017-06 TRANSISTOR 2SC4793  
 Q1901 8-729-620-06 TRANSISTOR 2SC3052-EF  
 Q1902 8-729-620-06 TRANSISTOR 2SC3052-EF  
 Q1903 8-729-043-95 TRANSISTOR 2SC3840K(3)  
 Q1904 8-729-620-06 TRANSISTOR 2SC3052-EF  
 Q1905 8-729-620-06 TRANSISTOR 2SC3052-EF

REF.NO. PART.NO DESCRIPTION REMARK

Q1906 8-729-119-80 TRANSISTOR 2SC2688-LK  
 Q1907 8-729-119-80 TRANSISTOR 2SC2688-LK

## &lt; RESISTOR &gt;

R1701 1-216-049-00 RES,CHIP 1K 5% 1/10W  
 R1702 1-216-049-00 RES,CHIP 1K 5% 1/10W  
 R1703 1-216-057-00 RES,CHIP 2.2K 5% 1/10W  
 R1704 1-216-045-00 RES,CHIP 680 5% 1/10W  
 R1705 1-247-815-91 CARBON 220 5% 1/4W  
 R1706 1-247-815-91 CARBON 220 5% 1/4W  
 R1708 1-216-035-00 RES,CHIP 270 5% 1/10W  
 R1712 1-260-311-11 CARBON 39 5% 1/2W  
 R1713 1-249-384-11 CARBON 1.8 5% 1/4W F  
 R1714 1-249-414-11 CARBON 560 5% 1/4W F  
 R1715 1-249-432-11 CARBON 18K 5% 1/4W  
 R1716 1-249-417-11 CARBON 1K 5% 1/4W F  
 R1717 1-215-913-11 METAL OXIDE 220 5% 3W F  
 R1718 1-249-432-11 CARBON 18K 5% 1/4W  
 R1719 1-249-384-11 CARBON 1.8 5% 1/4W F  
 R1720 1-249-400-11 CARBON 39 5% 1/4W F  
 R1721 1-249-414-11 CARBON 560 5% 1/4W  
 R1722 1-216-017-00 RES,CHIP 47 5% 1/10W  
 R1724 1-216-017-00 RES,CHIP 47 5% 1/10W  
 R1725 1-215-887-00 METAL OXIDE 150 5% 2W F  
 R1728 1-216-037-00 RES,CHIP 330 5% 1/10W  
 R1729 1-216-041-00 RES,CHIP 470 5% 1/10W  
 R1731 1-249-411-11 CARBON 330 5% 1/4W  
 R1751 1-216-049-00 RES,CHIP 1K 5% 1/10W  
 R1752 1-216-049-00 RES,CHIP 1K 5% 1/10W  
 R1753 1-216-049-00 RES,CHIP 1K 5% 1/10W  
 R1805 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1806 1-216-117-00 RES,CHIP 680K 5% 1/10W  
 R1807 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1808 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1809 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1810 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1841 1-216-097-00 RES,CHIP 100K 5% 1/10W  
 R1842 1-216-057-00 RES,CHIP 2.2K 5% 1/10W  
 R1843 1-260-111-11 CARBON 10K 5% 1/2W  
 R1844 1-216-061-00 RES,CHIP 3.3K 5% 1/10W  
 R1846 1-260-111-11 CARBON 10K 5% 1/2W  
 R1847 1-215-886-11 METAL OXIDE 100 5% 2W F  
 R1848 1-215-875-11 METAL OXIDE 10K 5% 1W F  
 R1901 1-249-441-11 CARBON 100K 5% 1/4W  
 R1902 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1903 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1904 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1905 1-216-097-00 RES,CHIP 100K 5% 1/10W  
 R1906 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1907 1-216-097-00 RES,CHIP 100K 5% 1/10W  
 R1908 1-216-033-00 RES,CHIP 220 5% 1/10W  
 R1909 1-215-493-00 METAL 1M 1% 1/4W  
 R1910 1-216-295-00 SHORT 0  
 R1911 1-216-073-00 RES,CHIP 10K 5% 1/10W  
 R1912 1-208-845-11 RES,CHIP 1M 5% 1/10W  
 R1913 1-216-049-00 RES,CHIP 1K 5% 1/10W  
 R1914 1-216-057-00 RES,CHIP 2.2K 5% 1/10W

VM

H1

S1

The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R1915	1-216-073-00	RES,CHIP	10K 5% 1/10W	D902	8-719-929-15	DIODE HZS9.1NB2	
R1916	1-216-675-11	METAL CHIP	10K 0.50% 1/10W	D903	8-719-929-15	DIODE HZS9.1NB2	
R1917	1-216-687-11	METAL CHIP	33K 0.50% 1/10W	D904	8-719-109-97	DIODE RD6.8ES-B2	
R1921	1-215-896-51	METAL OXIDE	4.7K 5% 2W F	D905	8-719-109-97	DIODE RD6.8ES-B2	
R1922	1-215-878-00	METAL OXIDE	33K 5% 1W F	D906	8-719-923-60	DIODE MTZJ-T-77-9.1A	
R1923	1-216-097-00	RES,CHIP	100K 5% 1/10W	D907	8-719-923-60	DIODE MTZJ-T-77-9.1A	
R1924	1-216-097-00	RES,CHIP	100K 5% 1/10W	D908	8-719-923-60	DIODE MTZJ-T-77-9.1A	
R1925	1-216-097-00	RES,CHIP	100K 5% 1/10W	< FUSE >			
R1951	1-216-073-00	RES,CHIP	10K 5% 1/10W	F601 $\Delta$	1-576-231-21	FUSE (H.B.C.) 4AMP 250V	
R1952	1-216-065-00	RES,CHIP	4.7K 5% 1/10W		*1-533-725-11	HOLDER, FUSE (F601)	
R1953	1-216-081-00	RES,CHIP	22K 5% 1/10W	< IC >			
R1954	1-216-097-00	RES,CHIP	100K 5% 1/10W	IC900	8-742-014-11	HYB IC SBX1981-51	
R1955	1-216-089-00	RES,CHIP	47K 5% 1/10W	< SOCKET >			
R1956	1-216-113-00	RES,CHIP	470K 5% 1/10W	J900	1-764-606-11	JACK	
R1957	1-216-073-00	RES,CHIP	10K 5% 1/10W	< COIL >			
R1958	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	L900	1-412-533-21	INDUCTOR 47UH	
R1959	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	L901	1-412-533-21	INDUCTOR 47UH	
R1960	1-216-113-00	RES,CHIP	470K 5% 1/10W	L902	1-408-603-31	INDUCTOR 10UH	
R1961	1-216-097-00	RES,CHIP	100K 5% 1/10W	L903	1-408-603-31	INDUCTOR 10UH	
R1962	1-216-101-00	RES,CHIP	150K 5% 1/10W	< RESISTOR >			
R1963	1-216-081-00	RES,CHIP	22K 5% 1/10W	R900	1-247-807-31	CARBON 100 5% 1/4W	
R1964	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R901	1-249-426-11	CARBON 5.6K 5% 1/4W	
R1965	1-216-081-00	RES,CHIP	22K 5% 1/10W	R902	1-249-437-11	CARBON 47K 5% 1/4W	
R1966	1-216-081-00	RES,CHIP	22K 5% 1/10W	R903	1-260-091-11	CARBON 220 5% 1/2W	
R1967	1-215-876-00	METAL OXIDE	15K 5% 1W F	R904	1-260-091-11	CARBON 220 5% 1/2W	
R1968	1-249-416-11	CARBON	820 5% 1/4W	R908	1-249-401-11	CARBON 47 5% 1/4W	
R1969	1-215-870-11	METAL OXIDE	1.5K 5% 1W F	R909	1-247-895-91	CARBON 470K 5% 1/4W	
< TRANSFORMER >				R910	1-247-895-91	CARBON 470K 5% 1/4W	
T1901	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS		R911	1-535-465-11	LEAD, JUMPER (5.0MM)	
*****				R912	1-249-422-11	CARBON 2.7K 5% 1/4W	
*A-1646-161-A H1 BOARD, COMPLETE				R913	1-249-429-11	CARBON 10K 5% 1/4W	
*****				R914	1-247-863-91	CARBON 22K 5% 1/4W	
< CAPACITOR >				< SWITCH >			
C902	1-137-372-11	FILM	0.022MF 5% 50V	S601 $\Delta$	1-571-433-21	SWITCH, PUSH (AC POWER)	
C903	1-137-372-11	FILM	0.022MF 5% 50V	S900	1-692-979-21	SWITCH, TACTILE	
C904	1-104-665-11	ELECT	100MF 20% 25V	S901	1-692-979-21	SWITCH, TACTILE	
C905	1-126-964-11	ELECT	10MF 20% 50V	S902	1-692-979-21	SWITCH, TACTILE	
C907	1-126-960-11	ELECT	1MF 20% 50V	*****			
C908	1-126-960-11	ELECT	1MF 20% 50V	*A-1652-053-A	S1 BOARD, COMPLETE	(KV-25C5/ 25C5D/25C5R/	
C911	1-102-074-00	CERAMIC	0.001MF 10% 50V		*****	29C5/ 29C5D/29C5R)	
C912	1-102-074-00	CERAMIC	0.001MF 10% 50V	*A-1652-056-A	S1 BOARD, COMPLETE	(K- 25C5B/29C5B)	
< CONNECTOR >					*****		
CN603 $\Delta$	*1-580-844-11	PIN, CONNECTOR (POWER)		*A-1652-052-A	S1 BOARD, COMPLETE	(K- 25C5E/25C5K/	
CN604 $\Delta$	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			*****	29C5E/29C5K)	
CN900	1-779-947-11	TERMINAL BLOCKS		< CAPACITOR >			
CN906	*1-564-511-11	PLUG, CONNECTOR 8P		C1103	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
CN907	*1-564-510-11	PLUG, CONNECTOR 7P		C1106	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
CN908	*1-564-508-11	PLUG, CONNECTOR 5P		C1107	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
< DIODE >				C1108	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
D901	8-719-302-45	DIODE SEL1210S-CD					
	*4-203-258-01	HOLDER, LED (D901)					





## KV-25C5/29C5

S1

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R1118	1-216-682-11	METAL CHIP	20K 0.50% 1/10W (KV-25C5B/25C5E/25C5K/ 29C5B/29C5E/29C5K)	R1174	1-216-085-00	RES,CHIP	33K 5% 1/10W
R1121	1-216-065-00	RES,CHIP	4/7K 5% 1/10W (KV-25C5A/25C5D/25C5R/ 29C5A/29C5D/29C5R)	R1175	1-216-085-00	RES,CHIP	33K 5% 1/10W
	1-216-073-00	RES,CHIP	10K 5% 1/10W (KV-25C5B/25C5E/25C5K/ 29C5B/29C5E/29C5K)	R1176	1-216-085-00	RES,CHIP	33K 5% 1/10W
R1122	1-216-065-00	RES,CHIP	4.7K 5% 1/10W (KV-25C5A/25C5D/25C5R/ 29C5A/29C5D/29C5R)	R1177	1-216-085-00	RES,CHIP	33K 5% 1/10W
	1-216-073-00	RES,CHIP	10K 5% 1/10W (KV-25C5B/25C5E/25C5K/ 29C5B/29C5E/29C5K)	R1178	1-216-073-71	RES,CHIP	10K 5% 1/10W
R1123	1-216-065-71	RES,CHIP	4.7K 5% 1/10W	< CRYSTAL >			
R1124	1-216-073-71	RES,CHIP	10K 5% 1/10W	X1101	1-767-813-21	VIBRATOR, CRYSTAL	
R1125	1-216-065-71	RES,CHIP	4.7K 5% 1/10W	*****			
R1126	1-216-073-71	RES,CHIP	10K 5% 1/10W				
R1130	1-216-073-00	RES,CHIP	10K 5% 1/10W (KV-25C5A/25C5D/25C5R/ 29C5A/29C5D/29C5R)				
R1134	1-216-073-00	RES,CHIP	10K 5% 1/10W (KV-25C5A/25C5D/25C5R/ 29C5A/29C5D/29C5R)				
R1152	1-216-035-00	RES,CHIP	270 5% 1/10W (KV-25C5B/29C5B)				
R1153	1-216-025-00	RES,CHIP	100 5% 1/10W (KV-25C5B/29C5B)				
R1154	1-216-067-00	RES,CHIP	5.6K 5% 1/10W (KV-25C5B/29C5B)				
R1160	1-216-230-00	RES,CHIP	22K 5% 1/8W (KV-25C5B/29C5B)				
R1161	1-216-190-00	RES,CHIP	470 5% 1/8W (KV-25C5B/29C5B)				
R1162	1-216-061-00	RES,CHIP	3.3K 5% 1/10W (KV-25C5B/29C5B)				
R1163	1-216-230-00	RES,CHIP	22K 5% 1/8W (KV-25C5B/29C5B)				
R1164	1-216-073-00	RES,CHIP	10K 5% 1/10W (KV-25C5B/25C5E/25C5K/ 29C5B/29C5E/29C5K)				
R1165	1-216-295-00	SHORT	0 (KV-25C5A/25C5D/25C5R/ 29C5A/29C5D/29C5R)				
R1167	1-216-025-00	RES,CHIP	100 5% 1/10W (KV-25C5B/29C5B)				
R1168	1-216-033-00	RES,CHIP	220 5% 1/10W (KV-25C5B/29C5B)				
R1169	1-216-049-00	RES,CHIP	1K 5% 1/10W (KV-25C5B/29C5B)				
R1170	1-216-001-00	RES,CHIP	10 5% 1/10W (KV-25C5B/29C5B)				
R1171	1-216-045-00	RES,CHIP	680 5% 1/10W (KV-25C5B/29C5B)				
R1172	1-216-190-00	RES,CHIP	470 5% 1/8W (KV-25C5B/29C5B)				
R1173	1-216-049-00	RES,CHIP	1K 5% 1/10W (KV-25C5B/29C5B)				



The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
		MISCELLANEOUS *****					
	$\Delta$ 1-406-807-11	COIL, DEMAGNETIZATION		4-204-101-51	MANUAL, INSTRUCTION	(KV-25C5B/29C5B) (FRENCH/GERMAN/ITALIAN/DUTCH)	
	1-452-032-00	MAGNET, DISC: 10MM $\emptyset$		4-204-101-11	MANUAL, INSTRUCTION	(KV-25C5D/29C5D) (GERMAN/GREEK/DUTCH/ENGLISH)	
	1-452-094-00	MAGNET, ROTATABLE DISK: 15MM $\emptyset$		4-204-101-71	MANUAL, INSTRUCTION	(KV-25C5E/29C5E) (SPANISH/FINNISH/DANISH/NORWEGIAN/ SWEDISH/HUNGARIAN)	
	$\Delta$ 8-453-005-21	NECK ASSY (NA297-M2) (KV-29C5A/29C5B/29C5D/ 29C5E/29C5K/29C5R)					
	$\Delta$ 1-453-264-11	TRANSFORMER ASSY, FLYBACK (NX-1680/U2B4) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)		4-204-101-91	MANUAL, INSTRUCTION	(KV-25C5K/29C5K) (CZECH/ENGLISH/POLISH/HUNGARIAN)	
	$\Delta$ 1-453-265-11	TRANSFORMER ASSY, FLYBACK (NX-1681/U2B4) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)		4-204-102-91	MANUAL, INSTRUCTION	(KV-25C5R/29C5R) (RUSSIAN/BULGARIAN/ENGLISH)	
	1-505-924-11	SPEAKER, LOUD (KV-25C5A/25C5B/25C5D/ 25C5E/25C5K/25C5R)			REMOTE COMMANDER *****		
	1-505-605-11	SPEAKER, LOUD (KV-29C5A/29C5B/29C5D/ 29C5E/29C5K/29C5R)		1-475-765-11	COMMANDER STANDARD TYPE (RM-883)		
	$\Delta$ 1-251-317-31	CAP ASSY, HIGH-VOLTAGE		*****			
	$\Delta$ 1-571-433-21	SWITCH, PUSH (AC POWER)					
	$\Delta$ 1-765-286-11	CORD, POWER					
	8-598-361-01	TUNER (BTP-AC402) (KV-25C5A/25C5D/25C5R/ 29C5A/29C5D/29C5R)					
	1-693-418-11	TUNER (TELE9-001A) (KV-25C5B/25C5D/ 29C5B/29C5D)					
	8-598-432-01	TUNER (BTP-AC411) (KV-25C5E/25C5K/ 29C5E/29C5K)					
	$\Delta$ 8-733-254-05	PICTURE TUBE (SD-257) (M60LCS60X) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)					
	$\Delta$ 8-733-856-05	PICTURE TUBE (SD-269) (M68LCT60X) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)					
	$\Delta$ 8-451-404-23	DEFECTION YOKE (Y25GXABA) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)					
	$\Delta$ 8-451-467-12	DEFLECTION YOKE (Y29GXA2B) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)					
	$\Delta$ 8-733-254-76	ITC (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)					
	*****						
		ACCESSORIES AND PACKING MATERIALS *****					
	4-042-476-01	BAG, PROTECTION (KV-25C5A/25C5B/25C5D/ 25C5E/25C5K/25C5R)					
	4-029-168-01	BAG, PROTECTION (KV-29C5A/29C5B/29C5D/ 29C5E/29C5K/29C5R)					
	4-204-137-01	INDIVIDUAL CARTON (KV-25C5A/25C5B/25C5D/ 25C5E/25C5K/25C5R)					
	4-204-115-01	INDIVIDUAL CARTON (KV-29C5A/29C5B/29C5D/ 29C5E/29C5K/29C5R)					
	4-203-350-01	CUSHION (UPPER) (ASSY) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)					
	4-204-109-01	CUSHION (UPPER) (ASSY) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)					
	4-203-347-01	CUSHION (LOWER) (ASSY) (KV-25C5A/25C5B/25C5D/25C5E/25C5K/25C5R)					
	4-204-112-01	CUSHION (LOWER) (ASSY) (KV-29C5A/29C5B/29C5D/29C5E/29C5K/29C5R)					
	4-204-101-41	MANUAL, INSTRUCTION (KV-25C5A/29C5A) (ITALIAN)					